

**Students' Attitudes and Perceptions of Content and Language Integrated Learning in a  
Secondary School**

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The NUGSE Research Committee reviewed the project entitled "Students' attitudes and perceptions of Content Language Integrated Learning (CLIL) in a secondary school"

and decided:

☐ To grant approval for this study subject to minor changes, to be discussed with supervisor

**Approval subject to minor changes:** The study is approved subject to minor changes.

Reviewers' feedback:

Apart from parental consent, the researcher should also ask students (participants) to read and sign an informed consent form. The informed consent form has not been described or made available in the online application form.

The parental informed consent form is appropriate, but the informed consent form for students is missing.

Before starting your data collection, you need to discuss these changes with your supervisor, revise your proposal accordingly, and then ask your supervisor to check the revised proposal.

Sincerely,  
NUGSE Research Committee

### **Abstract**

#### **Students' attitudes and perceptions of Content and Language Integrated Learning (CLIL) approach in a secondary school**

Following trilingual education that is being implemented in a number of piloting schools since 2007, science, technology, engineering and mathematics (STEM) subjects are taught in English by employing CLIL approach. However, CLIL approach is still in its infancy in Kazakhstani context, and little is known about stakeholders' perceptions which can be valuable for the understanding of its current state and for its successful implementation. Therefore, the present study aimed at exploring the students' attitudes and perceptions of CLIL approach in one of the 110 schools with trilingual education. The study sought answers to the following research questions regarding their attitudes, perceptions, perceived benefits and challenges of CLIL approach, and identifying similarities and/or differences in the perceptions of students based on the year of their study in CLIL. The study used mixed-methods approach with case study design and semi-structured interviews and questionnaires as data collection instruments. Convenience sampling strategy was employed for selection of 7 students who participated in face-to-face one-on-one interviews, and 69 students in paper-based questionnaire. The study revealed that students are mainly positive about CLIL approach and report CLIL as being beneficial to the development of English skills, preparation for better career and further education. A range of challenges revealed especially in the 2<sup>nd</sup> so called transitional year of study, when students move from studying terminology to studying the subject in English, such as insufficient level of English, psychological barriers, and the need for extra effort imply that teachers should provide extra support to students, both linguistic and psychological. Overall, these findings enhance our understanding of current

state of CLIL approach and may help policy makers and practitioners to make more informed decisions for more efficient use of CLIL approach for trilingual education implementation.

## **Аңдатпа**

### **Мектеп оқушыларының пән мен тілді кіріктіріп оқытатын әдіске (CLIL) көз-қарасы**

2007 жылдан бастап біршама мектептерде енгізіліп келетін үш тілді оқытуға сәйкес, жаратылыстану- математика бағытындағы пәндер CLIL әдісін қолдана отырып, ағылшын тілі арқылы оқытылады. Алайда, Қазақстан контекстінде CLIL әдісі әлі қалыптасу кезеңінде және де оның қазіргі жағдайын түсінуге, тиімді жүзеге асырылуына ықпал ете алатын негізгі стейкхолдердің көзқарасын анықтаған зерттеулер аз. Сондықтан, бұл зерттеу үш тілде оқытатын 110 мектептің біреуінде оқушылардың CLIL әдісіне деген көз- қарасын анықтай отыра, мынадай сұрақтарға жауап іздеді: оқушылардың CLIL әдісіне деген көзқарасы, оның қиындақтары мен артықшылары, әртүрлі сынып оқушыларының көз- қарастарындағы ұқсастықтар мен айырмашылықтар. Зерттеу аралас әдіс кейс-стади әдісін және де жартылай- құрлымдалған сұғбат пен сауалнаманы дерек жинау құралдары ретінде қолданды. Ыңғайлы іріктеме арқылы зерттеушімен бетпе-бет сұғбатқа 7 оқушы, ал сауалнамаға 69 оқушы таңдалды. Зерттеу нәтижесі оқушылардың CLIL әдісіне жақсы қарайтыны, және де оның ағылшын тілі деңгейін көтеретіні, болашақ мансаптары мен оқуларына жақсы әсер ететіні белгілі болды. Бірқатар қиындықтар әсіресе оқудың 2- ші өтпелі жылында, яғни тек терминологияны оқудан пәнді ағылшын тілінде оқуға көшкенде кезігеді. Атап айтқанда, ағылшын тілі деңгейінің жеткіліксіздігі, психологиялық қиындықтардың болуы және де оқуға қосымша күш салу қажеттігі сияқты қиындықтар анықталды. Бұл мұғалімнің осы кезеңде оқушыларға қосымша тілдік және психологиялық қолдаудың керектігін меңзейді. Бұл зерттеу нәтижелері қазіргі CLIL әдісінің жағдайын жақсырақ түсінуге,

үштілді білім беруді жүзеге асыруда CLIL әдісін барынша тиімді пайдалануға мүмкіндік береді.



### **Аннотация**

#### **Отношение и восприятие учеников средней школы к Предметно-Языковому Интегрированному Обучению (CLIL)**

Следуя трехязычному образованию, которое внедряется в определенных школах с 2007 года, предметы естественно-математического цикла преподаются на английском языке по методике предметно-языкового интегрированного обучения (CLIL). Однако в казахстанском контексте эта методика находится на стадии становления и мало известно, как стейкхолдеры воспринимают эту методику, эти знания в свою очередь были бы полезными для выяснения текущего состояния и улучшения ее реализаций. Поэтому данное исследование изучило отношение и восприятие к CLIL-у учащихся одной из 110 школ с трехязычным образованием, отвечая на вопросы касающихся отношения и восприятия к CLIL-у, преимущества и трудности CLIL-а, и выявления сходств и различий в восприятиях между учениками разных классов. Исследование использовало смешанный метод с кейс-стади с полуструктурированным интервью с анкетированием как инструменты сбора данных. Удобная выборка была использована при выборе 7 учеников для интервью и 69 для анкетирования. Согласно данным исследования, ученики по большому счету позитивно относятся к CLIL-у, называя такие преимущества как улучшение уровня владения английским языком, хорошая подготовка к будущей карьере и дальнейшей учебе. А также были выявлены ряд сложностей, особенно на второй так называемой транзитный год, когда происходит переход от изучения английской терминологии к изучению предмета на английском языке, такие как недостаточный уровень владения английским языком, психологические барьеры, и необходимость в больших усилиях. Эти данные указывают на то, что учителю нужно обеспечить дополнительную поддержку ученику: языковую и

психологическую. Результаты данного исследования углубляют наше понимание о состоянии внедрения CLIL и могут послужить для принятия решений для более эффективного использования методики CLIL для внедрения трехязычного образования.

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## **Chapter 1. Introduction**

As Kazakhstan's one of the long-term goals is to develop individuals with the knowledge of Kazakh, Russian and English (Nazarbayev, 2012), trilingual education is being implemented from 2006 through the piloting schools across the country. Within trilingual education program, the English language is not only taught as a subject but also as a component of Content and Language Integrated Learning (CLIL) approach, which enables to teach both subject content and language (Coyle, Hood, & Marsh, 2010). Although this approach is widely spread, used and researched in European countries (Marsh, 2002), it is still in its infancy in Kazakhstani context, and thus "needs developing and determining ways of implementation (Oskolkova, 2014, p. 1). Moreover, little is unknown how CLIL is being implemented in piloting schools (Smagulova, 2012), whereas their experiences are to be transmitted to other mainstream schools. Therefore, this study attempts to shed light on CLIL implementation in order to understand and improve CLIL practice in Kazakhstan.

Fostering trilingualism in an already bilingual community started from the idea of Trinity of Languages announced by the President Nazarbayev in 2006 on the XII convention of the Assembly of People of Kazakhstan (Zhetpisbayeva & Arinova, 2012). Since that time this idea grew into trilingual policy which has been transforming our society. Following the policy, Kazakh language should be "a consolidating factor of all ethnicities", while Russian is "historical advantage of the nation" and English as a tool that would "open new infinite resources for every citizen" (Nazarbayev, 2012, p. 28).

Following the trilingual policy, significant changes were initiated in the education sector. In his annual address to the nation, the president Nursultan Nazarbayev (2012) stated that education was one of the main priorities of independent Kazakhstan, and that acquiring English was very important to enter global arena successfully. The opportunities provided by



each of the three languages considered as contribution to that goal. Thus, trilingual education became “one of the main trends in education system” of Kazakhstan (MoES, 2013, p. 4).

The targeted approach to be used in the schools with trilingual education is Content and Language Integrated Learning (CLIL) (Irsaliev, Karabassova, Mukhametzhanova, Adil, Bekova & Nurlanov, 2017). This approach enables “learning content through an additional language” (British Council, 2016, para 1). In other words, students learn both the additional language and the content subject through this approach. As most of the children in Kazakhstan grow up speaking Kazakh and Russian, they experience less pressure when studying subjects through these languages as compared to English. Since English is a foreign language and it is learned mostly in the classrooms settings, it is considered as the most difficult part of the trilingual education program. However, the state goal is set; therefore, our further concern is to assure its successful realization.

Even though trilingual education was launched in 2007, it is still in its infancy because tasks and key indicators proposed in major policy documents are currently under realization.

### **Statement of the Problem**

Trilingual education drew a wide response in the society; both positive and negative. The most prominent debates are around teaching ICT, Physics, Chemistry, and Biology (IPCB) through English. Some see it as an advantage, some as a threat to Kazakh language and to the overall acquisition of these subjects (Baitukenov, 2016; Kanafina, 2014, Mamashuly, 2016). Recently issued State Program of Education and Science Development in the Republic of Kazakhstan (SPED) (MoES, 2016) states that trilingual education will be implemented through the translation of the piloting schools' experiences into mainstream secondary schools from 2017 till 2023 (p. 38). To assure this translation is successful, a careful and thorough investigation of the experiences of piloting schools is needed.

According to Smagulova (2015), there is “lack of clear idea of how content subjects are being taught through English in the classrooms and lack of education research” (p. 1). So, insufficient experience and lack of education research along with great deal of controversies, and debates (Baitukenov, 2016; Kanafina, 2014, Mamashuly, 2016) among main stakeholders can hinder the realization of trilingual education.

Mehisto and Asser (2007) corroborated the need for exploring stakeholder perspectives if their experiences are going to be applied in the expansion of the program. Many international studies acknowledge the significance and necessity of studying students' perspectives because they are one of the main stakeholders in education system (Dalton-Puffer, Hüttner, Schindelegger & Smit, 2009; Herrera, 2015; Huang, 2015; Ikeda, 2013; Lasagabaster & Doiz, 2016; Massler, 2012; Pladevall-Ballester, 2015; Ruiz de Zarobe, 2008; Tsuchiya, Perez Murillo, 2015; Vázquez, Molina & Ávila López, 2014; Wegner, 2012). However, it is unknown how Kazakhstani students perceive CLIL approach, what their struggles and successes are. Previous studies could derive valuable information for researchers, policy makers, practitioners and CLIL teachers. Indeed, “perspectives of learners inform and illuminate the very conditions of learning and teaching” (Johnson, 1999; Schocker-v. Dittfurth, 2001, as cited in Massler, 2012, p.36). Because of the lack of research on stakeholders' views in Kazakhstani context, important factors can be overlooked in CLIL implementation. Massler (2012) argues that “the lack of research with students can distort the way in which CLIL implementation may be understood and formulated” (p.36). While, substantial research has been carried out in the international context, no studies have been found in Kazakhstani context which deals with understanding how IPCB subjects are taught in English from the perspectives of students as one of the main stakeholders.

Taken together, lack of understanding of how teaching in English is occurring in the classrooms, dearth of research into this issue, and finally little time remaining for the country-wide implementation of trilingual education make up the research problem.

### **Purpose of the Study**

The present study aims to explore students' attitudes and perceptions of Content and Language Integrated Learning (CLIL) to understand the current state of CLIL implementation in a piloting school (PS) that is missioned to transmit its experience to mainstream schools in the region.

In order to achieve the research aim, three research questions were formulated.

### **Research Questions:**

1. What are students' attitudes and perceptions of CLIL in a piloting school?
2. What benefits and challenges do students see in CLIL?
3. How similar or different are their attitudes and perceptions based on the year of study in CLIL classes?

The first research question helps to identify the students' attitudes and perceptions toward studying content subjects through English. Second research question helps to identify how CLIL approach is beneficial for Kazakhstani students, and what kind of difficulties they endure while studying subjects through English. The third research question allows to see differences and/or similarities in the attitudes and perceptions of students in different years of study in CLIL. This question allows us to get insights on the proposed gradual implementation of trilingual program where students of different grades have different programs (MoES, 2015).

### **Significance of the Study**

First, the exploration of students' attitudes and perceptions of CLIL classes, the benefits and challenges they see is significant because the results of the study not only shed light on the current state of CLIL implementation in Kazakhstan, but also suggest some insights into the ways to improve the practice and policy. This information can be valuable for the policy makers and practitioners because it allows them to assess the current situation and make more informed decisions in the future. Second, by exploring CLIL in Kazakhstani context, not only it is beneficiary to this context but to the international body of knowledge as well. So, the study makes some contributions to the development of Kazakhstani and international empirical literature. Moreover, CLIL's formation as a major area of interest within the field of multilingual education over the last decade indicates the topicality and necessity of investigation into CLIL approach. In their article, Doiz, Lasagabaster and Sierra (2014) noted the need to explore the perceptions of students in different contexts, to see "whether students' preferences and motivation in CLIL settings can be transferable across different cultural settings" (p.134). So, the present study provides new insights into general body of knowledge by investigating Kazakhstani context. Another no less important aspect of this study is that it gives voice to students. It allows students, who are one of the key stakeholders, to think, reflect and be active participants of their own learning. By participating in the questionnaires and interviews, students can realize that their voices matter and as a result, feel somewhat more responsible for their studies. Overall, this study aims to provide the opportunity to advance our knowledge of CLIL implementation and to contribute to its development by giving voice to students; thus, to trilingual policy in a large scale.

Finally, I would like to note my main reason for choosing this topic. While working as an English teacher in a secondary school with trilingual education, my collaboration with

Physics and Biology teachers who teach their subjects in English sparked my interest. I witnessed the practices and problems of teaching these subjects in English which later turned into questions. In order to find answers and solutions to those questions, I embarked on the fulfilment of this study.

### **Thesis Outline**

Structurally, the thesis is composed of six chapters. The Introduction chapter presents a brief contextual background underpinning this study, followed by the problem statement, purpose and research questions, and significance. The subsequent chapter, Literature review chapter presents an analysis of relevant literature on this topic, the concepts used in this study, conceptual framework and empirical studies on international and Kazakhstani contexts. Methodology chapter provides the rationale for choosing a case study design within mixed methods approach, and describes data collection and data analysis procedures. The Findings chapter reports on the collected data from student interviews and questionnaires. Discussion chapter summarizes, explains and interprets major findings of the study in the light of the existing literature on CLIL approach. Finally, the Conclusion chapter summarizes the most important findings of the study, suggests recommendations for policy makers and practitioners to understand and improve CLIL implementation in schools, discusses limitations and future areas of research.

## Chapter 2. Literature Review

This chapter aims to provide a critical review of the existing literature related to the chosen topic. Namely, the study focused on exploring the attitudes and perceptions of students regarding studying STEM subjects in English. In order to explore it, three research questions were formulated. They are on identifying 1) students' attitudes and perceptions of CLIL 2) the benefits and challenges they see in CLIL context 3) and similarities or/and differences in attitudes and perceptions depending on the year of study. The chapter starts with the discussion of key concepts of the study. Then, the second section examines the literature that highlighted the importance of studying students' attitudes and perceptions. This is important to my study because it will accentuate the significant of the present study. The third section reviews international empirical studies regarding students' attitudes and perceptions on benefits and challenges of CLIL as well as their perceptions to CLIL pedagogy. In the fourth section, I will present the conceptual framework. Finally, I review existing empirical studies on Kazakhstani context with the focus similar to my research. This helps me identify the gap in the literature.

### Key Concepts

This section discusses four key concepts that are central to my research topic. They are attitude, perception, learning, trilingual education and Content and Language Integrated Learning (CLIL).

**Attitude.** Regarding the concept of attitude, there is a substantial number of definitions which indicates the concept's complexity. As "psychological construct" (Oppenheim, as cited in Garret, 2010, p. 20) attitude is defined as a "disposition to react favorably or unfavorably to a class of objects" (Sarnoff, as cited in Garret, 2010, p. 20), while as social construct it was defined as "socially shared, ideologically based opinions about specific social issues having

given rise to debate or struggle” (van Dijk, 2009, p. 65). The definition of Sarnoff provided in 1970 is a general core definition of attitude that was cited by many scholars. As regards to present study, which aims to reveal students' attitudes to CLIL approach, we used this definition because we want to see whether students react positively or negatively to the relatively new approach. Besides these two types of attitudes, we added the neutral attitude because participants are the students who may struggle to decide. Having defined what is meant by attitude in the present study, I will now move on to discuss the next concept-perception.

**Perception.** Another key concept of the study is perception. Different domains of science such as philosophy, psychology associated perception with “feelings, beliefs, experiences, preferences, mental images, values, concepts, heuristics, stereotypes, and knowledge” (Herrera, 2015). This concept is widely and deeply explored in Psychology. In his book called “Psychology: A concise introduction perception”, Griggs (2014) viewed sensation and perception separately. He stated that while we get the knowledge about the world around us by our sensational abilities, we can only interpret this knowledge through our perception. Similar to him, Goldstein (2010) reported that perception “is conscious sensory experience” (p. 8). For example, as he explains, when we see something, electrical signals occur, and that signals then move to the brain, then it represent our experience of seeing (p. 8). In the same vein, the definition of Wiesing (2016) in his book “Philosophy of perception”, seems to appear as general one because it is the one that philosophers, psychologists and neuropsychologists agree on. It states that “perception is process of interpretation. ... The perceived object is therefore an interpretive construct, that is a construction made by the subject through the act of interpretation” (p.23). As seen, the perception is closely related to interpretation. Since this study aims to explore how students perceive CLIL approach, it is considerable that study

operates on the idea of interpretation rather than sensory experience. Therefore, for this study, the definition of da Silva (2015) will be used. She stated that perception “involves our ability to elaborate, interpret, and assign meaning to the input we receive” (da Silva, 2015, p.2). This definition is suitable for studies related to education. It will help to explore the perceptions of students in the present study because the study examines how students elaborate, interpret and assign meaning to the input they receive from CLIL approach. In other words, it suits the purpose of the study.

**Trilingual education.** Another important concept is trilingual education. This concept is important because educational changes occurring in Kazakhstan act under the trilingual education reform. Interchangeably, the term multilingual education is used when referring to this concept. According to Cenoz (2013), researchers take multiple positions, while some consider multilingualism as the involvement of both two languages and more than two languages. In this study, the involvement of three languages is referred as trilingualism and multilingualism, whilst two languages as bilingualism (p. 7). Acquisition of three languages at schools is “becoming more widespread trend” (Cenoz, Hufeisen & Jessner, 2001, p. 3). However, acquisition of three languages differs from trilingual education. The latter means “the use of three languages as languages of instruction” (Cenoz et al., 2001, p. 4). This is where Kazakhstani education system is striving to be: Kazakh, Russian and English as languages of instruction.

The implementation and organization of trilingual education in school contexts is another important area of research. Jehannes Ytsma proposes a typology for planning trilingual education at schools on basis of three criteria such as “the linguistic characteristics of the context in which trilingual education takes place”, “linguistic distance between the languages involved” and “the simultaneous or consecutive introduction of the three languages



at school” (as cited in Cenoz, et al., 2001, p. 4). Similarly, in her book “Considering trilingual education”, Henn-Reinke (2012) discussed how trilingual education programs should be developed. She stated that clear goals, and outcomes should be set. Also, to develop successful trilingual program, one should explore the topics of “trilingual language acquisition and development of trilingual educational program” (p.16). It is worth mentioning the criteria for trilingual education. There are: available meaningful materials and resources, fluent teachers, trained teachers who can work with language and learners and develop their linguistic and academic skills (p.14). Clearly, trilingual education is complex and demands careful and rigorous consideration of various issues because “it is affected affected by a large number of individual and contextual factors and it combines the acquisition of several languages that present different characteristics at the linguistic and sociolinguistic levels” (Cenoz et al., 2001, p. 9).

**Content and Language Integrated Learning.** Finally, we are proceeding to the concept of Content and Language Integrated Learning (CLIL). CLIL is generally an umbrella term “that encompasses all the different varieties of teaching core subjects through a foreign language” (Marsh, as cited in Roiha, 2014, p. 2), and specifically “it is a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language” (Coyle, Hood, & Marsh, 2010, p. 1). The term additional language refers to a foreign language or a language other than a mother tongue. For example, in Kazakh secondary school, it can be Russian and English. The rationale for integrating content and language is to “achieve high degree of language awareness, accommodate diverse learning styles, provide greater exposure to L2, improve linguistic and communicative competence, and increase learner motivation through greater authenticity” (European Council, 2005). In addition, it is aimed to develop both content knowledge and language command. As

an innovative approach of teaching and learning foreign languages, CLIL has been widely used as an approach for multilingual education and considered as one of the successful approaches in European contexts (Henn-Reinke, 2012). However, as stated by Coyle (2007), “there is no single blueprint that can be applied in the same way in different countries” (p. 546). Kazakhstan has aimed to employ this approach within the framework of trilingual education (Irsaliyev et al., 2017).

These working definitions that stemmed from the discussion of four key concepts guided the present study in terms of the organization of Literature review chapter, development of interview and questionnaire, and as a result were fundamental to the analysis and discussion of the findings. In other words, the whole set of key concepts defines the present study.

### **The Importance of Exploring Students' Voices**

The focus on students' voices of CLIL is central to numerous studies, whether it is primary (Pladevall-Ballester, 2015; Vázquez, Molina & Ávila López, 2014; Massler, 2012), secondary (Wegner, 2012; Ikeda, 2013; Lasagabaster & Doiz, 2016; Herrera, 2015), vocational (Dalton-Puffer, Hüttner, Schindelegger & Smit, 2009) or higher education institutions (Huang, 2015; Tsuchiya, Perez Murillo, 2015) students. These studies have either focused on exploring the perceptions of students separately or together with other stakeholders such as teachers, parents and administrators. In both cases, the views of students were found indispensable to understand and improve the teaching and learning.

Some researchers acknowledged the value of insights that students can provide; for example, the insights into the effectiveness of the CLIL program in Catalonia in the study of Pladevall-Ballester (2015); and on teaching methods used in CLIL classrooms in the study of Vázquez, Molina & Ávila López (2014). Other researchers (Massler, 2012) identified the

implementation state and conditions of CLIL in schools along with students' concerns and successes while some tested the feasibility of various CLIL models in certain contexts (Ikeda, 2013). Some researchers compared the views of different stakeholders and thus could identify the areas of convergence and divergence of their views. For example, Wegner (2012) by comparing the perceptions of students and teachers revealed that their views differ regarding learning the language and content, and delivery of CLIL classes. As a result, these researchers could give practical recommendations for teachers, parents and administrators and to contribute to the body of ongoing research. One evident example is Massler's (2012) study where he recommended that at the first stages, CLIL should be implemented through modules to ensure painless learning.

It can be concluded that genuine interest of researchers in exploring the perceptions of students indicates the importance of students' voices. It is worth to mention that the great bulk of studies were conducted in the past decade. This may indicate the recent emergence of this phenomenon and most importantly the area for more investigation. Moreover, the results of their studies suggest relevant ideas necessary for the improvement of the CLIL in their contexts. Their contributions will be reviewed in more detail in the next chapter.

### **International Research on Students' Attitudes and Perceptions of CLIL**

This is the core section of the chapter because it reviews the very focus of the chapter—the international empirical studies on secondary school students' attitudes and perceptions of CLIL. The analysis of international research is provided below in five major themes. They are: students' attitudes and perceptions of CLIL; students' perceptions of learning the content in CLIL classes; students' perceptions of learning the language in CLIL classes; students' perceptions of CLIL pedagogy; perceived benefits of CLIL; and perceived challenges of CLIL.

**Students' attitudes and perceptions of CLIL.** Previous research revealed that students hold positive (Denman, J., Tanner, R., de Graaff, 2013; Ikeda, 2013; Lasagabaster & Doiz, 2016; Lasagabaster, Sierra, 2009; Vázquez, Molina & Ávila López, 2014; Wegner, 2012) attitudes toward CLIL, while some hold both negative and positive attitudes (Coyle, 2013; Finardi, Silveira, de Alencar, 2016; Yassin, Idris, Marsh, Tek, Ying, 2009).

The review of existing literature on students' perceptions of CLIL has revealed several distinct factors that affect their positive or negative perceptions. They are linked to language and teaching methods peculiar to CLIL approach. Numerous studies on CLIL associate students' perceptions with language factor (Denman et al., 2013; Ikeda, 2013; Vázquez et al., 2014; Yassin et al., 2009). As Denman et al. (2013) claims, some students perceive CLIL as an "opportunity for better future career and education" mainly because CLIL provides an opportunity to develop their language skills (p. 297). Furthermore, a quantitative study of Yassin et al. (2009) linked students' perceptions to their English level. They report that students with good command of English tend to be positive toward CLIL and vice versa. Other researchers, however, who have studied the correlation between the language proficiency and perception, found that students did not possess negative perceptions regardless of their low level of English (Ikeda, 2013; Vázquez et al., 2014).

Further, analysis of the literature revealed a consensus among scholars (Ikeda, 2013; Czura & Papaja, 2013) that students' perceptions of CLIL are mostly related to teaching methods that is characteristic for CLIL. For example, Czura & Papaja (2013) state that students perceive CLIL classes positively as they are more student-centered; students enjoy being active learners and receiving more attention from their teachers. Moreover, students find CLIL "more enjoyable" and "meaningful" due to "intense exposure and authentic situations"

(Lasagabaster & Sierra, 2009, p.13) and better organization of lessons (Hunt, 2011). Other studies (Finardi et al., 2016; Vázquez et al., 2014) confirmed these findings.

Despite these positive aspects of CLIL, several studies revealed also some negative aspects. A smaller number of learners found CLIL “too difficult”, “boring” and “no use” (Coyle, 2013, p.253), “confusing”, “unpleasant” and “more challenging” (Finardi et al., 2016, p.23). Such negative perceptions in these studies were caused by the presence of English in studying the content. Another study (Herrera, 2015) demonstrated how students’ perceptions of CLIL could change through time. Herrera investigated students’ perceptions of CLIL before and after attending CLIL classes. Specifically, the study highlights that students’ initial perceptions of upcoming CLIL classes and perceptions after being taught in CLIL classes were completely different: their perceptions changed from “difficult, unpleasant, and illogical” to “a good way to practice English, more interesting” (p. 112). The author concludes that such change occurs because students devise their own learning strategies to deal with difficulties, and also their teachers may create a collaborative atmosphere during the lessons. Such findings imply that despite CLIL classes being perceived negatively due to language difficulties, they can be alleviated by good teaching methods throughout time. Another study (Lasagabaster et al., 2014) compared the perceptions of students with one and three years of experience. They found that the more students are exposed to CLIL, the more they think CLIL is advantageous. As such, it can be concluded that negative perceptions mostly stem from students’ inexperience rather than the lack of skills or abilities to perform in CLIL classes.

Considering all of this evidence, it seems that positive perceptions of CLIL prevail over negative ones. Also, the authors put forward three main factors that underpin the perceptions of students. They are language related factors, CLIL’s nature reflected in the innovative teaching methods where teaching is student-centered with that activities that make

students active learners, and finally time. More importantly, however, these studies indicate that the teaching and learning approaches utilized in CLIL classes can be vital for building one's perceptions and they, in turn, may provide valuable feedback on its effective implementation.

**Students' perceptions of studying content subjects in CLIL classrooms.** The studies revealed that the degree of understanding the content is reliant on several factors. First, this degree depends on the level of language proficiency. In the study of Finardi, Silveira & Alencar (2016), students perceived learning the content subject in English as complicated. This research has been carried out in Brazil by utilizing questionnaires. In open-ended questionnaire item, students reported that English complicated already difficult subject (p. 21). Similar results were revealed in the study of Herrera (2015) and Wegner (2013). Due to the failure to fully understand the subject matter because of the insufficient level of English, students had to be more attentive and reread the text to understand it (Herrera, 2015). They also needed more time to think, find information from the text to contribute to class discussions (Wegner, 2012). They share less than they have got to say. However, students who had good command of English, easily understood the content. Students in the study of Massler (2012) illustrated sparse degree of understanding of the content; for example, while majority of the students understood the content, other students reported partial and little understanding. Collectively, these studies outline a critical role for the need of sufficient level of English to understand the subject.

**Students' perceptions on language learning in CLIL classrooms.** The existing literature on the language aspect of CLIL is extensive and mostly focuses on the effectiveness of CLIL in improving students' English language skills by running pre- and post- tests. However, in the present study, I only analyze studies that deal with the perceptions of students

on language learning within CLIL approach, which is not scarce. Regarding language learning, previous research findings revealed positive and negative perceptions. Moreover, while reporting on perceptions, students compare language learning in CLIL classes to traditional English classes. The following parts of this section moves on to describe this literature in greater detail.

Some researchers (Coyle, 2013; Ikeda, 2013; Pladevall- Ballester, 2015) found that students considered language learning in CLIL as learning in a different way. Hereby, students noted that they learn the language differently compared to how they used to do in traditional EFL lessons. This is supported by the findings from the study of Ikeda (2013), in which students perceive CLIL classes as 'different' and 'denser' in comparison to EFL classes. By "different", some students meant that CLIL hindered the development of all four language skills, but developed presentation skills and vocabulary. Other students reported that their language learning was more intense in comparison with English classes. As for the notion of density, it is explained by the students as learning both language and subject. Lasagabster and Doiz (2016) suggest that that it may result from the teacher's focus; if teacher stops focusing on language learning students might consider it less important than the content. In their study, students considered all four language skills along with vocabulary, grammar and communication abilities as important to improve in the first year of CLIL classes. However, as students succeed in that, and content gets more demanding and difficult, some language issues start to lose their importance.

Coyle (2013) argues that students perceive it as natural way of learning. More specifically, learners highlight that having certain content makes their learning more natural, since language becomes the language of instruction, i.e. language is learned naturally like they learned their mother tongue. Similar to Coyle (2013), Hüttner, Dalton-Puffer and Smit (2013)

found that students perceived language learning in CLIL "as practice-related, natural way of learning" (p.275). Likewise, Herrera (2015) revealed similar results. Her participants saw studying the history of Mexico in English as a "chance to practice language, experiment with language, and use language as a tool to share participants' culture and traditions" (p. 113).

On the question of perceptions regarding language in CLIL context, the review revealed an interesting view. For example, Hüttner et al. (2013) claim that students may find language learning in CLIL as "more relaxed" than in English classes (p. 276). The researchers argue that if CLIL teacher's English level is lower or the same as the students' level, the latter will feel relaxed about the language part since learning takes a cooperative form, students and teachers learn the language together. Noteworthy, students and teachers perceive it positively.

In all these findings, students' reactions to learning English in CLIL approach, which is newer than EFL, is juxtaposed with conventional way of thinking about learning a foreign language. In conclusion, it can be noted that in the eyes of students, language learning aspect in CLIL classes stands out against traditional EFL classes by the virtue of CLIL's nature. But what is more, and most importantly students in general perceive it positively.

**Students' perceptions of CLIL pedagogy.** Thus far, numerous studies have also focused on students' perceptions of teaching methods within CLIL programme (Banegas, 2014; Coyle, 2013; Denman et al., 2013; Lancaster, 2016; Finardi et al., 2016; Hunt, 2011; Ikeda, 2013; Vázquez et al., 2014; Wegner, 2012). In addition, by investigating the perceptions of students, these studies provided valuable information on the effectiveness of CLIL pedagogy. Regardless of the context, content subject, language, and model of CLIL, it was found that while generally CLIL classes are perceived very positively, some perceive it negatively. Most researchers explored the perceptions of students by asking them to reflect on



the methods, activities, and overall the lesson organization and pace. Together these studies provide important insights into how CLIL pedagogy works for students, and into the strong and weak sides when using CLIL pedagogy.

To begin with, students found activities useful and enjoyable (Coyle, 2013; Hunt, 2011; Vázquez et al., 2014), cooperative (Hunt, 2011). In the case of Vázquez et al., 2014), teachers employed task-based approach in History, Science and Arts classes for students with low English proficiency. Data revealed that task-based approach could encourage students to participate in oral tasks, pair and group work. During the lesson, students liked working with songs, stories, role-plays, videos, interactive games, and computers. As a result, it contributed to the formation of the positive perceptions. The researcher argued that this approach was appropriate for the students with low level of language proficiency. A mixed-methods study by Denman et al. (2013) conducted in the Netherlands reported also positive perceptions of students such as CLIL lessons being effective, and practical. Students explained it that they were enjoying the lessons had various hands-on, creative and communicative activities with the use of the Internet sources and media. Findings of a recent study (Lancaster, 2016) are in line with the previous ones. Students also described CLIL lessons as “innovative” because of the nature of CLIL’s teaching methods which is learner-centered and authentic”, and “authentic” because of the resources used on the lessons (p. 155). A study of Finardi et al. (2016) confirmed the effectiveness of CLIL methods because students found it “dynamic, productive, interactive” due to the CLIL's teaching methods, namely its communicative activities, learner centeredness. Therefore, majority of the students would like to study another content subjects in English. However, some students were not enjoying it because CLIL lessons did not focus on grammar. Also, some students describe it as “not productive” because they did not manage to translate the text. This may indicate, as it was concluded by the author, that without certain

level of language proficiency, students will feel uncomfortable and will need more language support during CLIL classes.

Finally, one study (Banegas 2014) carried out an interesting action research where students co-constructed CLIL lessons together with the teacher. They decided what topics, activities, tasks and resources should appear in their CLIL lessons. Although this study does not directly explore the perceptions of students like previous researchers, still by constructing the lessons, students could demonstrate their perceptions of how CLIL lessons should be. As a result, students chose activities to develop speaking and listening such as discussions and debates. Later, in the interview, students shared that this kind of learning was dynamic. In this case, there was a close cooperation between the teacher and students. Every next class was discussed together.

Several studies revealed the areas where students felt less satisfied with the teaching approaches. Wegner's case study (2012) revealed discrepancy of students and teachers views on teaching approaches. For example, students in year seven questioned the topics chosen by the teachers, thus had to clarify some aspects themselves. Students also expressed their discontent when they were asked complex questions and were told to discuss them spontaneously. This indicates that teachers should pay heed to the students' interests and abilities. Conversely, in the study of Ikeda (2012), students learnt from trained CLIL teachers, therefore this study revealed different results. Students appreciated teacher's approaches such as using visuals, organizing pair and group work, ascertaining their knowledge before beginning of a new topic, asking questions and teaching specific vocabulary.

The evidence reviewed in this section seems to suggest that students perceive CLIL pedagogy positively. They appreciate its methods, activities and atmosphere that it creates. However, insufficient language level hampers the enjoyment of students from CLIL classes.

**Perceived benefits of CLIL.** Previous research revealed a plethora of benefits that students see from their CLIL classes. Since CLIL's aim is to increase the foreign language proficiency, it is expected that students will report this kind of benefit. In fact, majority of the studies reported that the biggest perceived benefit was the improvement of the English language proficiency in general (Coyle, 2013; Lancaster, 2016; Doiz, Lasagabaster & Sierra, 2014; Lasagabaster & Doiz, 2016; Pladevall- Ballester, 2015), some writing and speaking (Cross & Gearon, 2013; Ikeda, 2013), and some translation skills (Coyle, 2013). Moreover, students in the study of Lasagabaster and Doiz (2016) emphasized that their English benefited more from CLIL than traditional English lessons.

Apart from linguistic gains, students named non-linguistic benefits from CLIL. Some appreciated increased content knowledge and enhanced communicative competence (Ikeda, 2013), while others noted that CLIL helped them understand the importance of English for themselves (Pladevall- Ballester; 2015), and thus their motivation increased. Also, the study of Coyle (2013) revealed interesting results. His participants, who studied content subjects through French, Spanish and German, stated that CLIL helped them to increase the awareness of their own language- English. Also, these students thought they would see benefits of this program in the future career.

As shown, when exploring benefits of CLIL from the perspective of students, researchers reveal both expected" and "unexpected" benefits. All the benefits that students name are significant. However, this is only one side of the coin, to get clearer vision of how students perceive CLIL, it is also important to consider perceived challenges to which we now turn our attention.

**Perceived challenges of CLIL.** Due to the relatively newness of CLIL approach, researchers are keen to investigate the challenges students face in studying content subjects

through a foreign language. Additionally, some researchers investigated how they overcome the challenges. According to research findings, the challenges seems to be universal. Students in different contexts experience similar difficulties associated with the limited language proficiency and rigorousness of the CLIL program.

Language related challenges are the most common among students. Finardi, Silveira and de Alencar (2016) found that students experience challenges with the vocabulary due to their own limited vocabulary. Therefore, students saw it as an obstacle in their learning. They overcame it by “looking up the words in the dictionary, making associations with cognate words and asking classmates, guessing the meaning of the context from the text as well as ask the teacher for help” (p.19). Similarly, Wegner (2012) and Herrera (2015) found that vocabulary was perceived as a challenge. Herrera (2015) maintained that limited language proficiency of students can impede the content understanding. It is clear from the words of her participants that expressing thoughts in English is difficult because of the limited vocabulary. This predicament does not allow students to be active learners. Therefore, when studying the history of Mexico in English, English was considered as the most difficult part of the subject. Students who participated in the study of Pladevall- Ballester (2015) noted that for them among all language activities, speaking part was the most difficult. From these findings, it may be concluded that the language of instruction in the class can be detrimental to study the content, and thus the quality of education can suffer.

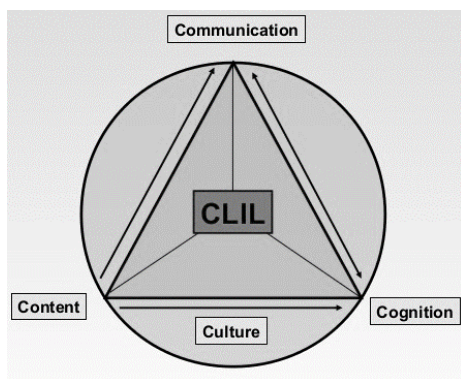
Apart from language challenges, students experience content-related challenges. Finardi, Silveira and de Alencar (2016) reported that when difficult subjects like Physics are taught in English, students find it complicated. However, when students studied First Aid course, there did not have such difficulties. As a result, the authors contended that CLIL

should be implemented after students obtain sufficient level of English, and start with less cognitively demanding subjects.

As shown above, the analysis of students' attitudes and perceptions can provide valuable information about the difficulties students endure. Overall, these studies urge us to pay heed to the challenges reported by the students. Their feedback can help us not only understand the current situation with CLIL approach, but also to improve it.

### **Conceptual Framework**

This section deals with the conceptual framework of the study. The study employs Coyle's 4 Cs framework as conceptual framework (See figure 1). It is a framework that "focuses on the interrelationship between four Cs" (Coyle, 2007, p. 550) or four blocks: Content (subject matter), Communication (language learning and using), Cognition (learning and thinking processes) and Culture (developing and global citizenship)" (Coyle, Hood & Marsh, 2010, p. 41). The four Cs were developed for teachers as principles to plan their lessons. So, in the CLIL lessons, students learn content in the target language because teacher focuses on linguistic aspects too. Also, teacher develops students thinking skills by employing tasks that challenges and improve higher-order thinking skills. The analysis of existing empirical studies in the previous sections demonstrated that students' perceptions of CLIL are associated with the innovative nature of CLIL that focuses on the integration of language and content, on developing students cognitive and communicative skills by employing student-centered approach. Therefore, this study aims to use this framework in order to identify to what extent 4 Cs work in the Kazakhstani CLIL settings as it is "a conceptual map which provides a theoretical basis from which to start" (Coyle et al., 2010, p. 42).



*Figure 1.* The 4Cs conceptual framework (Coyle, Hood & Marsh, 2010)

### **Trilingual Education and CLIL in Kazakhstani Context: Policies and Practices**

Implementing trilingual education was essential for responding to the globalized world's requirements. It seems timely and necessary course that will lead to prosperity of the nation. In his annual address to the nation, Nazarbayev (2012) stated that for the country to join the top- thirty developed countries by 2050, we need to raise competitive, intellectual nation. The opportunities provided by each of the three languages considered as contribution to that goal. Even though trilingual education was first announced in 2007, it is still in its infancy because tasks and steps proposed in major policy documents are to be realized; therefore, there is a plenty room for research. The analysis of existing literature showed the dearth of studies on the topic of trilingual education and CLIL approach, while studies on secondary school students perceptions of studying STEM subjects through English, to my knowledge, does not exist. What follows is the analysis of major policy documents and practices regarding trilingual education and CLIL approach.

**Policies.** As for the policy documents, Framework of language policy (Nazarbayev, 1996), Law on Languages (1997), The State Program of Development and Functioning of Languages of Kazakhstan for 2011-2020 (2010), State Program of

Education and Science Development (MoES, 2016) and Roadmap of Trilingual Education Development for 2015-2020 (MoES, 2015) are the core policy documents developed on the state level that shape our language policy in society and in education sector in particular.

Framework of language policy that appeared in 1996 did not include the English language, it only discussed Kazakh, Russian and languages of all ethnicities living in Kazakhstan, while recent policy documents raise the issue of English. In 2011, State Program of Development and Functioning of Languages of Kazakhstan targeted the “increase of the share of population speaking three languages to 10 % by 2014, to 12 % by 2017, to 15 % by 2020” (p.3). According to the State Programme of Development and Functioning of Languages of Kazakhstan (MoES, 2010) the proportion of the Kazakh language speakers is expected to increase to 95 %, Russian 90% and English 20% respectively by 2020 (pp. 2-3). Raising plurilingual individuals at schools with the knowledge of Kazakh, Russian and English is seen as “an essential condition for developing the quality of education and science, thus developing human capital for sustainable economic growth” (MoES, 2016, p. 2). Implementing trilingual policy was essential for managing diverse linguistic and cultural situation of the country and for responding to the globalized world’s requirements. It is considered as timely and necessary course that will lead to prosperity of the nation.

Another important strategic document is Roadmap of Trilingual Education Development that was developed in 2015. It is the most articulate and elaborate document on trilingualism so far. It puts forward the goal, aims, task and key indicators for successful and phased implementation of trilingual education in all levels of education. There are seven strategic directions of the document (p. 6). It covers regulatory and legal framework, research work, methodological support, teacher training and development, institutional support, informational support and financing. Also, State Program of Education and Science

Development (MoES, 2016) provides SWOT analysis of current situation, key indicators, tasks, and financing.

It is obvious that educational domain is the one that was and is being the most impacted by the trilingual policy. Trilingual education program stemmed from the trilingual policy. In the scope of this programme, piloting schools started to teach Science, Technology, Engineering and Mathematics (STEM) subjects through English in 2006 in 33 major piloting schools. Apart from these 33 schools, there are currently 110 secondary schools with trilingual education program (MoES, 2015, p.4) and it is planned that their number will be increased from 110 to 700 by 2020 (MoES, 2015, p.2). The first wave of country-wide trilingual education program implementation will be gradual and between 2017-2023 where STEM subjects such as Physics, Mathematics, Biology and ICT will be taught through English regardless of the school type and medium of instruction. Between 5-6 grades, students will study only the terminology of two STEM subjects (ICT and Science), then in grades 7-8, students will study all four STEM subjects at the expense of extra-curricular activities and optional classes. In the 9<sup>th</sup> grade, students will study one of the elective STEM subjects in English, and in the following grade, all four subjects in English which is in 2021-2022 academic year (MoES, 2016, pp. 38-39).

**Practices.** There are several studies that dealt with the CLIL approach; for example, one study explored the perceptions of NIS teachers (Bekenova, 2016), another one the perceptions of university students (Zharkynbekova, Aimoldina, Akynova, Abaidilda, & Kuzar, 2014; Bekova, 2016), and one focused on the advantages and disadvantages of teaching and learning History of Kazakhstan in the second language from both the teachers' and students' perspectives (Shegenova, 2016). Collectively, these studies indicate that Kazakhstani teachers



and students are positive about trilingual education and CLIL approach, despite the existing problems and challenges.

Regarding the studies in higher education, Zharkynbekova et al. (2014) and Bekova (2012) revealed that majority of university students are positive about trilingual education. However, some students think that the spread of English puts the Kazakh language and languages of minority groups at risk (Zharkynbekova et al., 2014). This study utilized mixed methods approach by embracing 670 students through two focus-group interviews and surveys. Similarly, the participants of Bekova's study (2016) indicated on the existing problems. For example, lack of materials, unqualified teachers, students' low language level, and psychological barriers.

As for the studies conducted in secondary education level, Bekenova (2016) found that teachers perceive CLIL as a "beneficial and necessary approach" (slide, 12) despite having problems with English, "lack of joint seminars and CLIL materials, and the lack of collaboration between team teachers" (slide 15). Likewise, the study of Shegenova (2016), which focused on the teachers and students, revealed that both teachers and students experience difficulties with the language and this negatively influences on the students' comprehension of the content. In particular, students perceived this approach positively; they described it as an effective way of learning the Kazakh language (slide 6), despite having substantial challenges. "Most learners are struggling with writing, reading and speaking in History lesson, their level of understanding the texts is very low and they are not interested in History because they do not understand many issues" (slide 6).

Overall, however, these studies remain narrow in terms of quantity and areas of research in comparison with the number and focus of international studies. While, a plethora of previous international studies have identified many valuable insights by exploring students'

perceptions of CLIL, research on Kazakhstani contexts falls behind. Therefore, there is much room and need for future investigations. As seen, there is no research that examined the perceptions of students of CLIL approach when studying STEM subjects through English in Kazakhstani secondary schools, and particularly in piloting schools. In addition, as seen, existing research focused on NIS while this study on a secondary piloting school in a small town. Since the role of piloting schools is to transmit their experiences into other mainstream schools, investigating their case is of paramount importance. This study aims to fill this gap in the literature and shed light on CLIL implementation on Kazakhstani context through the lens of 4Cs framework of Coyle et al. (2010).

### **Chapter 3. Methodology**

While in the previous chapter, I reviewed the existing literature on the topic of the study, in this chapter, I will describe and justify the choice of methodology and methods employed to collect the data. They were chosen in order to best suit the purpose and the research questions. The purpose was to explore the attitudes and perceptions of students about their learning experiences in CLIL classes. To do so three research questions were posed: first, to find out how they perceive these classes, what benefits and challenges they see and to identify whether their perceptions changed over time. In the first section of the chapter, I discuss the research design of the study, and then in the second section, the sample and site followed by the methods of data collection. In the consequent sections, data analysis and ethical consideration of the study will be presented. Final section will state the limitations of the study.

#### **Research Design**

Having identified research questions, and the purpose of the study, I chose a case study design within mixed methods approach. Since the study was concerned with getting in-depth exploration of students' perceptions of CLIL phenomenon within trilingual education policy implementation, gathering both qualitative and quantitative evidence was found suitable to provide both "a condensed understating of a problem as well as detail" (Creswell, 2008, p. 565). Yin (2008) also noted that case studies enable to "investigate a contemporary phenomenon within its real-life context" (p.23). Gathering qualitative and quantitative data in a case study is considered as a "one of the strengths of case studies" by Demetriou (2013).

A qualitative research approach is justified in my study because it allowed me to understand better how students perceive their learning experiences, whereas quantitative approach allowed to reach a bigger number of participants. According to Bonnet (2012), who

established “an empirical evidence base for sustainable development of future CLIL research” (p. 66), asserts that CLIL research should “combine 2Qs, i.e. quantitative and qualitative approaches” (p. 76).

As Yin (2008) proposed, case studies can take three forms: exploratory, explanatory and descriptive. This case study will take an exploratory form because the purpose of the study is to explore students' voice and attitudes toward CLIL effectiveness to learn content and language. Since the study aims to explore students' points of view and their voice, there is a need for a qualitative research design that will help understand CLIL phenomenon through the students' perspectives. Case study, is useful when investigating a unique case (Cohen, Manion & Morrison, 2007); it also involves an in-depth examination of a case (Wilson, 2013). CLIL practice in Kazakhstani context can be considered as a unique case and new phenomenon too.

The potential limitations of case study such as subjectivity of the researcher will be eliminated by using multiple sources of evidence: quantitative and qualitative (Yin, 2008).

### **Research Site and Sample**

In this section, I describe the research site, sample, and the sampling strategy.

**Research site.** The research site is one of the 110 schools that is implementing trilingual education (MoES, 2016) in the country. The school is in Pavlodar oblast and it teaches one of the STEM subjects (Physics) through English. I used convenience sampling strategy for the research site because I had access to the school (I worked there before). The school is missioned to share its experience with other schools in the region.

**Sample.** The whole population of students who study content subjects in English under trilingual education at this schools are 165 students in grades 5- 9. Purposeful sampling strategy was used to select the participants for my study. As can be seen in Table 1, out of 85

students studying in grades 7-9 69 who are more experienced in CLIL compared to students in 5-6 grades students were selected.

Table 1

*Participants of the quantitative part of the study*

Grade	Number of participants	Total number of students
7	25	34
8	29	33
9	15	18
Total	69	85

Their experience varies from 1 year to 3 years. Therefore, participants of the interview were coded by the year of their study. For example, students in the first year of their studies - 1.1, 1.2 and 1.3, while students in their second year- 2.1, 2.2 and so on. 69 students out of 87 students participated in quantitative part of the study which makes up 81 per cent response rate. For the qualitative part, I used convenient sampling strategy, as a result overall seven students volunteered, two from the 7<sup>th</sup> and 8<sup>th</sup> grades, and three from the 9<sup>th</sup> grade. As a token of gratitude, all students received a chocolate sweets.

### **Data Collection Tools**

Since “case studies can be based on any mix of quantitative and qualitative evidence” (Wilson, 2013), which is the strength of the case studies, several data collection tools were used to “achieve in-depth understanding” (Day Ashley, 2012) of the case. Warwick and Chaplain (2013) also noted that “combining approaches that have different degrees of researcher participation and which access pupil perspectives in different ways- can be highly revealing” (p. 67).

Many researchers acknowledged the advantages of mixing both qualitative and quantitative data collection tools in one study. Moreover, numerous studies that investigated students' perceptions of CLIL also applied both quantitative and qualitative data collection tools, most of them chose questionnaires and interviews; for example, Tsuchiya & Pérez Murillo (2015), Dalton-Puffer, Hüttner, Schindelegger & Smit (2009), Yamano (2013), Massler (2012), Ikeda (2013), Wegner (2012), Huang, (2015). So, I employed two data collection tools: paper-based questionnaire and one-on-one face-to-face interviews. Questionnaire was chosen to gather data from larger number of students in order to build a broader picture of the issue, and interviews with students to explore it more deeply. The rationale for choosing one-on-one interview over focus group interview is to ensure anonymity and confidentiality.

**Interviews.** Strengths of the qualitative data is that “well collected qualitative data empowers the researcher to have a strong understanding of the real-life situation since it provides firsthand, grounded picture (Miles, Huberman & Saldana, 2014). They also noted that qualitative data are “fundamentally well suited for locating the meanings people place on the events. In this case, people are the students, the meanings are their attitudes and beliefs, and event is a CLIL class. Warwick and Chaplain (2013) raised the issues of things to be considered when interviewing children. For example, “overcoming reticence, establishing trust, choice of vocabulary, maintaining informality, overcoming the problems of inarticulate children” (p. 68) etc. It is very important to keep in mind that children might think that they should say what the researcher wants to hear. These concerns were carefully observed while designing and conducting the interviews.

I conducted semi- structured face-to-face interviews with the combination of open and close-ended questions. I designed 20 questions. Follow-up questions were asked specific to

students' responses. The questions asked the students to reflect on their attitude, perceptions, experiences, benefits and challenges of CLIL, personal observations, and also on their daily CLIL practices (See appendix B).

**Questionnaire.** Advantage of conducting questionnaire is that it gives the opportunity for the researcher to collect data from a larger number of participants. Questionnaire contain questions from previous studies as well as other questions relevant to Kazakhstani context.

Questionnaire format and the language was designed taking account the age of participants as well as their developmental capabilities. The recommendations of Warwick and Chaplain (2013) when constructing questionnaires for children was taken into account such as “size of the font and the size of the presentation of the questionnaire” (p. 72). Questionnaire items was specifically designed to measure students' attitudes and beliefs regarding their learning in CLIL classes. It included background and attitudinal questions (Creswell, 2014).

The questionnaire consisted of two background questions, 5 multiple choice and 5 Likert scale questions for understanding the attitude toward CLIL approach, 2 multiple choice and 2 Likert scale questions for the benefits of it, 3 multiple choice and 8 Likert scale questions for challenges they experience (See appendix B). Some questions were reviewed after the student interviews.

Questions included the following areas:

*Background questions:* the subjects they learn through English, their language repertoire (Tsuchiya & Pérez Murillo, 2015).

*Attitudinal questions.* Students should select the degree of their agreement with the statements on the combining English with content subjects:

- Attitude;
- impression;

- benefits and challenges;
- struggles and anxiety;
- learning achievements;
- the degree of content and language comprehension;
- teaching approaches, materials and sources;
- the effect of CLIL to their ability to read, watch, listen, write, speak in English.

Overall, the chosen methods of data collection enabled me to obtain wide (questionnaire) and in-depth (interview) data. In the following passages, I will talk about each data collection instrument in more detail.

### **Data Collection Procedure**

Since my study deals with students under eighteen, I had to get the access to the them, so first, I contacted with the head teacher in advance. After she granted me the access, I collected the parental consent forms, and also got the assent from students. I gave a letter of support from the university and a consent form to the head teacher. With the head teacher support, I was able to send parental consent forms on the first day at the research site.

Data collection started on the 5<sup>th</sup> and ended on the 15<sup>th</sup> of December. During these two weeks, I was at school. The school staff gave me a warm welcome and it continued throughout the whole data collection process. The two weeks were just right amount of time to conduct interviews and questionnaires. When I entered the research site, the head teacher was at the trainings at that moment. Her deputy met me, she was informed about my work. I described the study to her in detail and showed her the letter of support from the university. After that, the work has started. She provided me the exact current number of students in grades 7-9, the names of their class teachers, their classrooms and schedule of classes. She offered me several rooms to settle as my temporary office, I chose a museum of the first president because it was



remote and quiet place. I was allowed to collect data during the longest break times: 20 minutes breaks after the 3<sup>rd</sup> and 4<sup>th</sup> lessons.

The biggest challenge was to distribute parental consent forms for the questionnaire to 87 students, so that they would show it to their parents and then collect the signed ones. To distribute them, with the help of the deputy director, I gathered students in the assembly hall after the 6<sup>th</sup> lesson where I explained the study and the importance of the consents to them. Deputy director announced the gathering on the school radio, and I reminded every class about it between the breaks. Together with the deputy director the distribution process went fine. However, if I were to change it, I would do it otherwise- approach each grade separately during the break time because the classes are small and usually students spent last 5 min in the classroom. Smaller number of students is easier to manage.

As for the collection of consents, it varied from grade to grade. The next three days, I was busy collecting the consents. I collected most of them during these three days.

Initially, I planned to conduct questionnaires first and then interviews. However, I had to switch them because it was difficult to gather parental consent forms quickly from a larger number. Instead, I conducted face-to-face one-on-one interviews once I received the consent. Meanwhile, I was gathering parental consent for the questionnaire. On the contrary, this order enabled me to get the validation of my questions before I reached the larger number of participants in the questionnaire.

For the principles of reciprocity, and at the instance of the deputy director of multilingual education, I organized informal round table discussion to share my experience and knowledge on multilingual education with CLIL teachers. On the last day of my data collection, I gathered CLIL and language teachers of the school. I talked about multilingual

education, its models, strategies and presented several classroom activities for teaching and learning vocabulary.

### **Data Analysis Approach**

In this section, I will discuss how I analyzed the obtained data.

First, seven 15-20 minutes interviews were recorded on my voice recorder application in my smart phone. Then, all interviews were transcribed with the help of the GOM player that allowed me to slow down the pace (See appendix C). After that they were coded manually. I used pens of different color for code and quotes. Coding was challenging for me, especially eliciting the main thought of the interviewee's response and naming it. Initially I came up with 69 codes and then I reduced them. Codes were developed under the 9 themes: attitudes and perceptions of CLIL and factors influencing them, language skills improvement, learning the content and prospects, psychological barriers, language difficulties, comprehension problems, time-consuming, learner strategies.

Second, student questionnaires were analyzed in the SPSS Statistics 24.0. First, I coded each question, then entered the data into the data set. I assign a value to each variable.

To describe the basic features of the data, and common trends, differential statistics (frequencies) were used. The quantitative and qualitative data were analyzed separately, but final discussion brought the results together. So, two types of data were analyzed: numerical and narrative. Numerical data were analyzed using statistical analysis with SPSS; and narrative using interpretation of the researcher. A written account of numerical data will describe and explain the numerical results of the questionnaire. Analysis of narrative data from interviews "identified salient features and ideas" (Plowright, 2011, p. 169).

### **Reliability and Validity**

Some issues related to reliability and validity were covered when discussing data collection tools in the previous sections of this chapter. In this section, these issues will be discussed in more details.

The reliability and validity of obtained data means that it is consistent and meaningful respectively, but it “needs to be consistent first before it can be meaningful” (p.177); therefore, factors listed by Creswell (2014, p.177) that can lead to unreliable results, were taken into account when designing the data collection instruments and during data collection procedures. Factors such as “ambiguous and unclear questions”, “fatigue and nervousness of participants” were addressed by using simple and understandable questions for students while interviews and questionnaires were administered during the recess time in the beginning of the school day. In addition, data triangulation was used to ensure the data validity, as Cohen et al. (2007) stated the more the results from different data collection tools correspondent each other the more “the more the researcher will be confident about the findings” (p. 141). According to Creswell (2014), in that case “the study will be accurate because the information draws on multiple sources of information” (Creswell, 2014, p. 283).

As regards interviews, Bush asserts that for the interview results be valid, interviewees should be able to state their thoughts freely and openly (as cited in Briggs, Coleman, 2007, p. 93). Therefore, the semi-structured interviews were devised. What is more, the fact that participants know the researcher as their teacher, we already had a close rapport. Interviews went in the friendly atmosphere, students addressed to me as the ‘teacher’, Thus, I could feel how student easily discussed their experiences, successes and struggles.

Data collection instruments were piloted in a class with other students. The questionnaire and interview were piloted with students of NUGSE. After piloting, I received

some thoughtful comments and feedback from them. Some questions were improved both in the interview and questionnaire.

### **Ethical Issues**

Before starting any data collection activities, I obtained the ethics approval from NUGSE Research Committee. I also successfully completed Collaborative Institutional Training Initiative (CITI) courses. When I arrived at the research site, I started from getting signed consent form head teacher and parents of the participants. Consent forms clearly articulated the purpose of the study, the procedures of data collection, risks and benefits, and how and where the obtained data will be reported (See appendix A). All efforts were made to remove all possible identifiers. Questionnaire comprised of closed-ended questions, so that student handwriting was impossible to identify. Personal identifiers such as gender and grade were excluded from the questionnaire.

- Participants were assigned a number and the school was called “X” in any report forms and presentations.
- All computer documents were kept in a password-protected computer.
- As for the interviews, one-on-one interview was chosen to minimize the risk of identity disclosure.
- Consent forms, questionnaires, interview protocols and notes were kept in a secure location, only the researcher will access them.

### **Conclusion**

The purpose of this chapter was to describe and justify the research design and data collection methods, to present sample and research site, data collection procedures, approach to the analysis of the data. In the chapter that follows, I present the findings of the study.

## **Chapter 4. Findings**

In this chapter, I present the findings revealed from the two data collection instruments, student interviews and questionnaire in order to address three research questions. They are: identifying the attitudes and perceptions of students of CLIL classes, perceived benefits and challenges in studying content subject in English, and exploring the similarities and/or differences in the perceptions of students based on their year of study in CLIL. The findings will be presented under the three research questions thus forming four broad themes- students' attitude and perceptions of CLIL, perceived benefits, perceived challenges, differences and similarities of students' perception based on the year of study. The theme "Perceived benefits" has following subcategories: language skills improvement, learning the content, prospects, as well as the theme "Perceived Challenges": psychological barriers, language difficulties, shortage of time.

Findings from quantitative and qualitative data were integrated in every theme not only to supplement each other but also to reveal areas of convergence and divergence. Quantitative data will be followed by the qualitative in some categories, and vice versa in the other categories. While quantitative data allows to get overall insights, qualitative data will provide deeper insights into the topic. The chapter is concluded with the list of main findings.

### **Students' Attitudes and Perceptions of CLIL**

While paper-based questionnaire was successful to identify the attitudes of all participants to CLIL, on-one-one face to-face interviews helped to obtain in-depth answers on the perceptions of the approach. The overall response rate to the questionnaire was high; and all participants answered the attitudinal questions. As for the interviewees, most of the students were quite vocal about their opinions. So, this section will help to identify the attitudes and explore perceptions of students.

**Students' attitudes toward CLIL.** When running descriptive statistics, the results showed that the majority of students have positive attitude towards studying Physics in English. In response to the question: 'Do you like studying Physics in English?', majority of the students (55 %) liked their CLIL lessons, slightly less number of students (25 %) liked it very much, some students were not sure (18 %), and about 3 % of students did not like it at all. In sum, 75 % of all students were positive about studying Physics in English. All students who participated in the interview were positive also about CLIL. Qualitative evidence revealed that students who enjoy English enjoy their CLIL classes too. As one of the interviewee stated: "I was excited [about studying Physics in English] because I love English" (Participant 2.2). This is one possible reason of positive attitudes towards CLIL. Now, let us take a closer look to the qualitative evidence on the perceptions that can give insight on the reasons for students' attitudes.

**Students' perceptions of CLIL.** As for the perceptions, in-depth interviews could derive important findings. From the answers obtained, the students reported both positive and negative perceptions. Whilst most the interviewees mentioned that CLIL was "interesting", "necessary", and "useful", some stated that it was "difficult". One of the informants stated that: "... English and Physics are, in my opinion, necessary subjects, and when they are together, it becomes more interesting and necessary" (Participant 3.1). Another informant stated: "It is interesting for me because when discuss in groups, we use English" (Participant 2.1). The comment of the following informant explains the necessity to study in English. "It will be important for us to be able to speak in three languages in the future" (Participant 1.1). The comment illustrates that students are familiar with the trilingual policy and understand its importance for their future. One student found CLIL lessons lively, because of the increased interaction between students, and students and teacher. The participant noted "the lessons are

always lively. We are glad. If someone does not understand Russian, we say in Kazakh. If not Kazakh, we say in English. We help each other” (Participant 2.1). This finding demonstrates that CLIL classes differ from traditional classes.

Interestingly, some students perceived CLIL as “a tool to popularize and promote the Kazakh language” (Participant 1.1), some as “a tool to show the progress of Kazakhstan” (Participant 3.3). Some noted that CLIL was “a new more advanced level of studying content subjects”, a “new phenomenon”. On this occasion, in response to Question “Why you study Physics in English”, most of those surveyed indicated that they study it because it will be necessary for their further education, and career”, some “because school demands”, some do not know, and fewer because of the parents. Finally, one participant associated CLIL with “independent searching and seeking” (Participant 1.1), another one as “informative” (Participant 3.1).

Turning now to the negative perceptions, several students reported CLIL classes being “difficult” (Participant 2.1) and “sometimes difficult” (Participant 1.2). Noteworthy, all three group representatives made this statement. This aspect will be discussed in the section on challenges.

Together, these findings suggest that, in general, students are positive about studying content subject through a foreign language, and that positive perceptions outnumber the negative ones. However, there are substantial number of students who were negative or neutral. In order to get more insights about the factors that influence on the formation of their perceptions, we now turn our attention to the perceived benefits and challenges of CLIL.

**Perceived Benefits of CLIL**

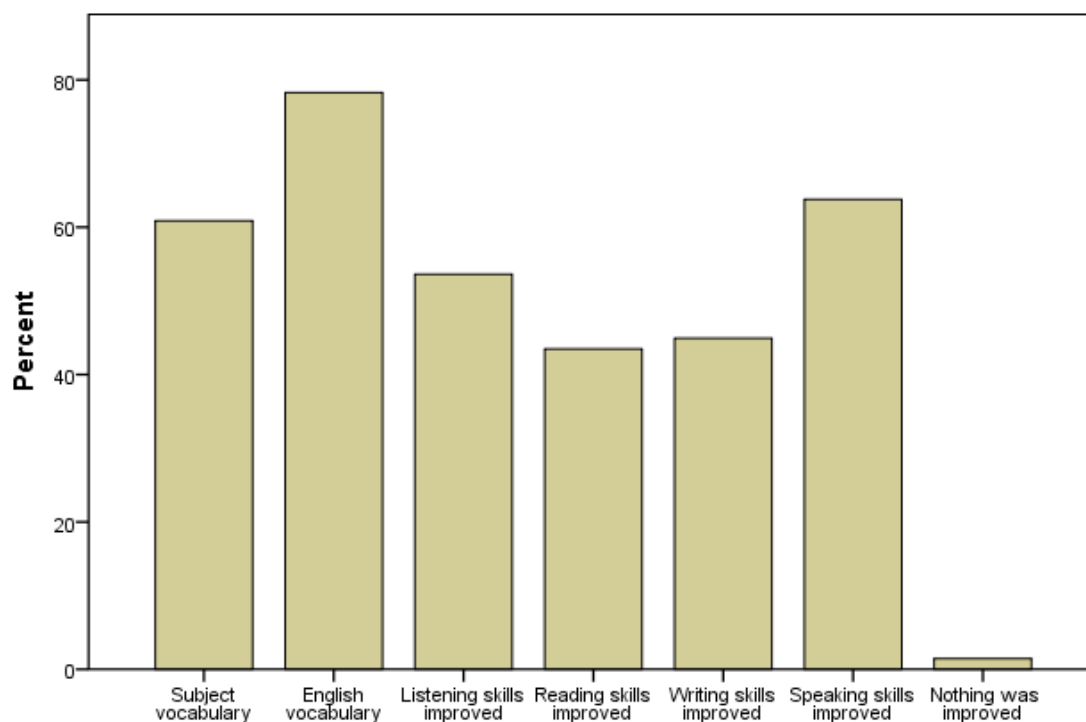
This section discusses the benefits that students see in studying Physics in English. Three subsections emerged based on the answers from the interview and questionnaire: language skills improvement, content knowledge improvement, and prospects.

**Language skills improvement.** When interview participants were asked to explain reasons behind their satisfaction with CLIL, all seven interviewees reported that their English benefited the most. Data obtained from the questionnaires, also showed that CLIL was beneficial for the improvement of the English language proficiency. When students were asked to indicate their agreement with the statement “My English proficiency is improving because of these lessons” on the Likert scale, 45 % of students agreed and 40 % agreed strongly, while 13 % were neutral and only 3 % disagreed with it.

Looking closely to the data, most interviewees stated that their speaking skills developed as a result of CLIL classes as well the vocabulary. Talking about the linguistic benefits, one interviewee said: “it influences on speaking... speaking practice. When we speak a lot, it improves our pronunciation” (Participant 1.1). Another student said: “In the beginning I thought it would be difficult, then I started to like it; it was interesting. and we started to know more words” (Participant 1.2).



Quantitative data on the item “Due to studying Physics in English, the following language skills improved...” revealed similar views (Figure 2). Three most frequent answers were that CLIL was beneficial for their English vocabulary growth as well as for speaking skills improvement. Least frequent answers included reading, listening, and writing skills



improvement. Only one respondent indicated that he/she did not benefit from CLIL at all.

*Figure 2.* Because of CLIL classes, the following language skills were improved...

Other benefited skills that were revealed from data analysis are pronunciation and translation skills. The next comment illustrates it best: “When we go to our English classes, it gets easier. Our pronunciation is better. When we read, we pronounce words correctly. Also, we encounter some words from the Physics class, and we can quickly translate them” (Participant 2.1).

As for the least mentioned benefits, while writing skills improvement was mentioned by only 9<sup>th</sup> grade students, some reported that due to CLIL classes their motivation to learn English was increased.

The results in the section indicate that studying content subject in English positively influence on the English language proficiency of the learners. Moreover, they have the use of it not only in CLIL but in English classes.

**Content learning.** Another subtheme that emerged from the findings was benefits regarding learning the content of the subject. According to the interview data, all seven students reported that their terminology knowledge increased. One student sees knowing English words for the concepts of Physics' "as a deepening the knowledge of the subject" (Participant 3.2).

**Prospects.** Another benefit that students see in CLIL is the prospects it offers. While students of the 8<sup>th</sup> and 9<sup>th</sup> grades noted that it would be beneficial in their further studies at university level and in future career, students of the 7<sup>th</sup> grade just stated as "for the future". Talking about this an interviewee said: "In my opinion, we will benefit from it a lot" (Participant 3.2). As our president said, first we should speak Kazakh, then Russian and then English because future depends on the younger generations" (Participant 2.1).

In general, all students appreciated that with CLIL they would be more proficient in English in the future, and thus would have better job opportunities and be more confident travelers. One participant pointed to the importance of knowing the subject terminology in English this way: "I chose Physics as a fifth subject in the UNT. In my chosen career, it is important to know English when travelling and making contracts with people (Participant 3.1).

This finding was also confirmed when students were asked to reveal whether students want to continue study content subjects in the future. Approximately, 65% of the respondents

would like to study other subjects in English. However, 26 % of respondents remained neutral, whilst 5% of respondents were negative about it.

All 7 interviewees reported that they would like to study in English in the future because they believe it is necessary and they will benefit from it. Students suggested to study their favorite subjects in English. Some students because of the language difficulties would like to study subjects like ICT because they believe that “with the computers it is better to know English” (Participant 1.1), or the subjects like Mathematics where speaking and discussion is not demanding, and amount of vocabulary is less. As one interviewee said: “I would like to study Algebra [in English] because it just adding and subtracting, numbers ... it is easy” (Participant 2.2).

Overall, it was revealed that students found CLIL beneficial for improving their English proficiency, diversifying content learning and for their future endeavors. However, the results in this chapter also indicate that there some students who did not find CLIL beneficial nor useful. The next section, therefore, moves on to the perceived challenges.

### **Perceived Challenges of CLIL**

This section presents the findings on the challenges that students face in CLIL. The findings revealed that students face linguistic and non-linguistic challenges.

**Language difficulties.** It was revealed that the English language was the most challenging part for the students. Difficulties with learning terminology, participating in speaking activities, comprehension difficulties and pronunciation were the most common challenges raised by the students participating in the interview. Here are some of their quotes: “I like Physics, but in English it is difficult... Physics in English is interesting..., but not easy” (Participant 2.1), “studying in English is very difficult for me [studying Physics in English]. Studying in three languages is easier [studying Physics in three languages] (Participant 2.1).

Another participant demonstrated the level of their English language use in the classroom:

“When doing tasks and exercises, explaining the theme, we try to speak English a bit”

(Participant 2.2). In particular, speaking part is the most challenging. One student said: “The most difficult is explaining, proving [the task]” (Participant 2.2)

In the interview, many students reported that learning terminology was difficult and they did not fully know their meanings. One participant commented: “Sometimes, I do not know the terminology; sometimes we do not understand [terminology]” (Participant 1.2).

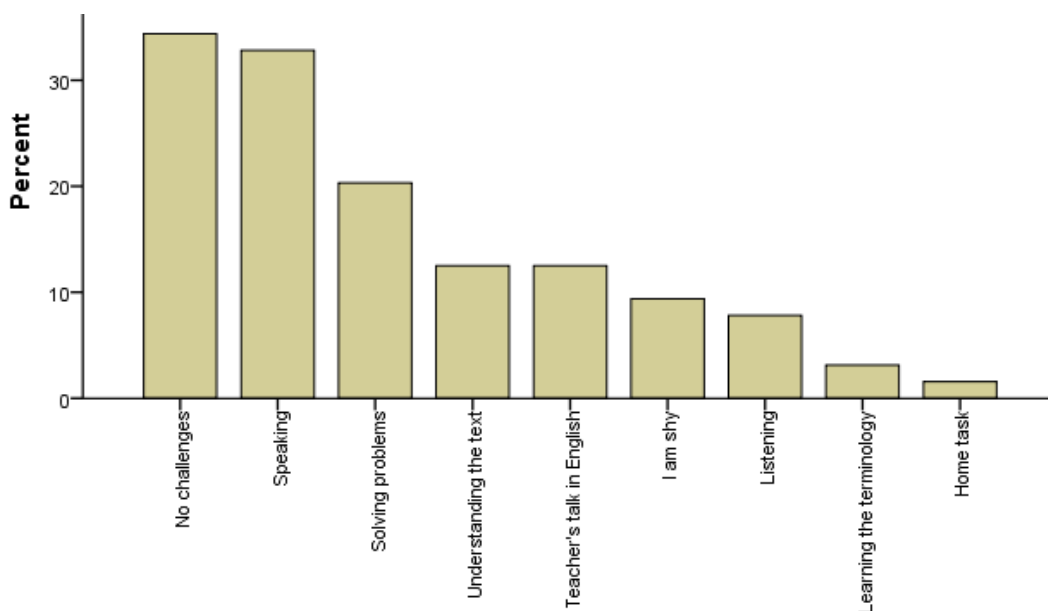
Another interviewee, when asked about the most challenging part, said: “I do not understand the meaning of the new words. That is why it is difficult when doing the tasks with the new words. I may not understand its meaning. So mostly it is the terminology” (Participant 3.1). As a result, insufficient level of English and terminology led to the problems associated with misunderstanding or failure to fully understand the task and classroom discussions. For example, one interviewee said: “Sometimes we do not understand the tasks, but solving is easy because we learn it in the Physics in Kazakh class. However, in Physics in English we should do it in English. Sometimes we do not understand” (Participant 2.2). This indicates that understanding the task in English before solving it is problematic. Students may not solve it just because of the language barrier, even though they were able to do it in Kazakh. For students, it is difficult to learn the physical terminology. Based on the interview responses, students learn the terminology by memorizing the words from the dictionary and by translating them. As one of the interviewee said: “In Physics in English lesson, we read many terminology words [from the dictionary], we read words one by one and the teacher corrects our pronunciation” (Participant 1,2). Another informant reported the following: “we learn new terminology... teacher gives us a terminology book, we learn the words by heart, and tried to solve the tasks that we usually solve [in Kazakh] in English” (Participant 3.2).

Therefore, some students would like to study less cognitively demanding subjects. As one interviewee noted: "It is difficult to study subjects like Chemistry and Physics in English because we should solve the tasks. In Biology, there are no such things. We just learn parts of the body, for example. It is easy" (2.1). However, some students argued that understanding the content does not depend on English level. For example, one interviewee stated that understanding the subject matter does not correlate with proficiency in languages. She put it this way; "If one cannot understand Physics, he/she will not be able to do so in all three languages. If one understands it, it could be done in three languages" (Participant 1.1).

Let us now turn to the responses from the quantitative data. To the questionnaire statement "I encounter many challenges because of English", more than 30 % were neutral, about 25 % agreed, and the same amount disagreed. The number of students who strongly disagreed prevailed those who strongly agreed. These findings show that more than half of all participants do encounter many challenges associated with English.

However, to the statement "My level of English is insufficient to study Physics", majority of the student were neutral and disagreed, while 15 % strongly disagreed. Similarly, 15 % agreed and strongly agreed with the statement.

These findings can bring us to conclusion that since students have regular classes of Physics in Kazakh, they may experience minor problem with comprehension, but face issues more with producing and using English for learning.



*Figure 3. Challenges*

Figure 3 illustrates questionnaire responses on the challenges that students endure in CLIL. 35 % of students reported that they did not have any challenges and the same amount having challenges with speaking. At the second place is solving problems; 20% of students experience troubles when solving the tasks in English. More than 10% of students reported having problems with understanding the text and talk of the teacher in English. Less than 5 % of students experience troubles with shyness, listening comprehension and the home task.

This finding confirms again that it is challenging for the students to use the language in practice, i.e. speaking and solving the tasks. It may be assumed that students who report no challenges, have sufficient level of English and/or good at Physics in their mother tongue. So that they can guess the meaning of the task even without knowing English words. As one of the interview said: “Maybe some students do not understand it in English because they do not now Physics. If you know Physics, you will understand it in English too” (Participant 3.1)

**Intensive self-study.** Open-ended questions of the interview elicited another challenge that students face when studying Physics in English. Two out of the six interviewees expressed their concerns regarding the shortage of time to do extra- curricular activities such as dancing and singing caused by the rigorousness of the subject. They commented that Physics in English subject required more time to do the home task and preparation for the next class demanding an intensive self-study (Participant 2.2 & 3.1).

**Psychological barriers.** This subsection reports the findings regarding the psychological states of the students when learning the content subject in English. The findings showed that students endured shyness, uncertainty, and worry. These psychological barriers tend to be only in the beginning of the program, and after several classes, these feelings faded. Four out seven participants of the interview reported having such barriers. One interviewee expressed it this way:

At the beginning, in the 7<sup>th</sup> grade I was very shy. I did not like when I was called out to the blackboard. But now I speak even though my pronunciation is not good because my classmates do not laugh, they support me. I cannot say that everybody speaks well (Participant 2.2).

Another student said: “I was a bit worried because I thought I could not manage it. I was a bit worried, but after the first lesson, I liked it. It was interesting”, she continues: “I had problems in the beginning year, as I said I was worried, and because of it I did not understand ...I was uncertain” (Participant 3.1). One more participant said: “In the first lesson, I worried about it, about my marks. I thought I would get 3s, but not it is Ok. I get 5s” (Participant 2.2).

As seen from the qualitative data, these psychological barriers were temporary, and faded once students realized that it was feasible and interesting.

Although interview participants noted that the challenges are present only in the beginning of the study, questionnaire responses to the item “During the lessons I feel...” showed that 20 % of students reported that they “feel confused, 14 % “feel uncertain”, and 9 % “are bored”.

Other three participants did not experience any emotional struggles, but on the contrary, were happy about it. The comments below explain the reasons. One interviewee said: “I was so happy because I love English”. Another interviewee said: “I was very glad because for me it was something new. We have English classes, now we have Physics in English” (Participant 3.3).

Turning now to quantitative data that involved more students, it gives the information on what students experienced and how they perceived their initial lessons. Half of the all respondents were excited, 25 % were happy and 25 % were worried. About 20 % of respondents indicated that they were uncertain about CLIL at the beginning. Overall, 75 % of the respondents did not have any psychological barriers, while others had. These responses indicate that not all learners experienced psychological barriers.

In summary, these results show that majority of the students were not experiencing any psychological barriers, and those who had these kinds of barriers faded after short period of time.

***Learner strategies.*** The theme of learner strategies stemmed from the discussions of challenges with students. Participants willingly shared the ways they addressed these challenges of studying content subjects in English. Students shared their strategies for tackling the challenges that occur at the lessons and during individual learning.

During the lessons, when they do not understand something in English, they switch to Kazakh and/or Russian. Since, translanguaging was allowed during the class, and the teacher



used translanguaging herself, students resorted to translanguaging when the tasks and concepts were not clear. They were allowed to read the task in English, and use Kazakh or Russian to some parts of the discussion. One student described it this way: “If we cannot say something in English, we say it in Kazakh, Russian” (Participant 1.2).

Another strategy that was used by students was asking the teacher for clarification. They stated that it was not wrong to do so during and after the class. Also, students saw support from their peers, again during and after the class. This support can be in forms of consultation, advice, psychological support, and home task explanation. Three of the informants, mentioned that learning should be “meaningful and consistent”. By ‘meaningful’ they meant diligent learning of the new terminology and allocating more time to the preparation from the beginning of the year. They indicated that these strategies would lead to success.

Three participants suggested that one should learn to confront their fears of the new subject. They assured that it existed only in the beginning. Some students managed to involve their relatives and friends as supporters and helpers. Three of the interviewees noted that allocation of the extra time and being active and attentive during the classes helped to improve their learning.

The participants on the whole have developed such strategies as...that help them in their learning. Moreover, they put forward them as recommendations for students who is studying content subjects through English or about to start it.

### **Differences and Similarities of Students' Attitudes and Perceptions of CLIL Classes**

The third research question sought to identify any similarities and/or differences in the attitudes and perceptions of students based on the year of study in CLIL.

Table 2 demonstrates that students with different years of experience have slightly different attitudes. The response rate to this item in all grades was quite high. Overall, it is seen that students with 1-year and 2-year experience are mostly positive about CLIL. However, students with 2-year experience have differentiated attitudes. Looking closely to the table, we can see that while majority of the respondents were positive, number of students who was negative and neutral about CLIL exceeds the number of other students with 1 and 2 years of experience.

Table 2

*Attitudes of students based on the year of study*

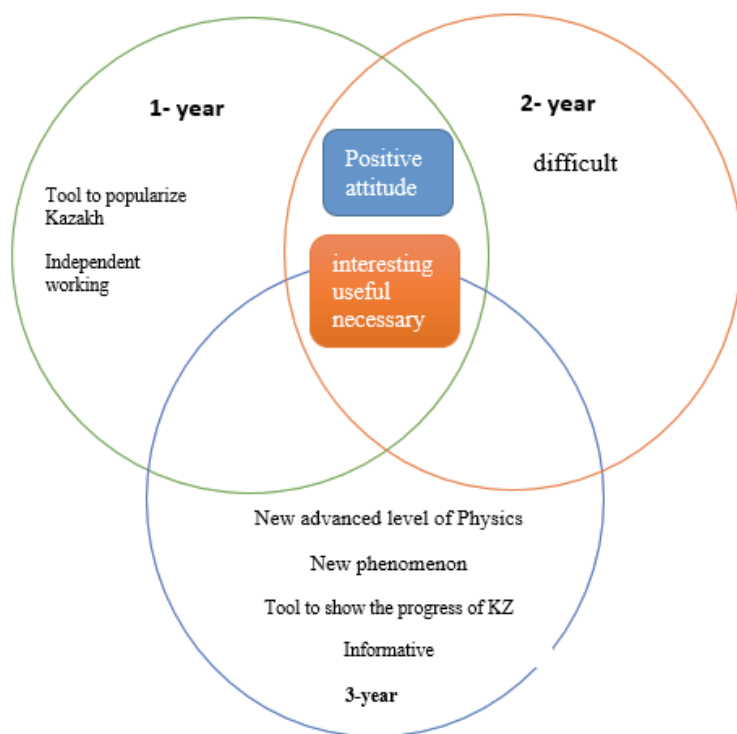
Attitude	Year of study (response rate)		
	1-year (73%)	2-year (87%)	3-year (83%)
Positive	23 students	17 students	14 students
Negative	0	2 students	0
Neutral	2 students	9 students	1 students

Following interview response showed that students experience more challenges in the 2<sup>nd</sup> year of the program. She stated:

We started in the 7<sup>th</sup> grade, since then .... It was easy in the beginning, it was not difficult because we worked with the terminology book, learned the terminology, so in the 7<sup>th</sup> grade it was mostly about learning terminology. However, in the 8<sup>th</sup> grade, we started to solve problems in English, discuss them in front of the class; it was difficult for me because I had to speak in English (Participant 2.2).

This quote might serve as an explanation for the table above. Once students get to the 8<sup>th</sup> grade, they are required to use more English, not for learning terminology only, but for learning the content of the subject; therefore, it gets difficult for them. Thus, these students more negative or neutral attitudes.

The perceptions of one-year, two-year, and three-year study students were compared by means of Venn diagram illustrating similarities in the convergence area of circles, and differences in separate circles.



*Figure 4.* Similarities and differences of the perceptions of the students based on their years of CLIL experience.

Figure 4 demonstrates the results of the data addressing the third research question. The Venn diagram shows that all participants had positive attitude towards CLIL despite their year of study. Other three parts illustrate differences of the perception of CLIL. As seen, students with 1-year and 3-year of study report only positive perceptions (tool to popularize Kazakh, new advanced level of Physics), whilst 2-year experience students report also negative ones (difficult).

### Summary of Major Findings

1. The study revealed three types of attitudes that students hold toward studying Physics in English by means of CLIL approach: positive, neutral and negative. While majority of the participants hold positive attitude, some students demonstrated neutral and only few expressed negative attitudes. The student's perceptions of CLIL are found to be positive as well as negative with the former implying program's attractiveness, usefulness, necessity, novelty, individual and societal benefits, and the latter meaning the program's complicacy and workload rooted in the English language.
2. Students perceive CLIL as beneficial because it increases their English language proficiency that in turn widens the scope of opportunities for them. Improving their English will help them succeed in their further studies and careers.
3. Students encountered various kinds of challenges including linguistic incompetence (limited vocabulary, speaking skills) that limit the comprehension of the subject, rigor of learning (shortage of time, intensive self-study), and psychological barriers (initial uncertainty, shyness and anxiety).
4. Overall, the majority of students seem to have positive attitudes and perceptions of CLIL. While younger students tended to provide more idealistic views about the benefits of CLIL that are in parallel with official trilingual policy, older students had more hands-on approach citing career prospects and further studies. Students with 2-year experience had more neutral or negative perceptions due to the level of difficulty of CLIL program at the transitional period.

To sum up, these results provided insights into the perceptions and attitudes students have toward CLIL, the benefits they see and challenges they face in one of the Kazakhstani piloting schools. Taken together, these results suggest that students, especially with 2-year

experience, despite having both linguistic and non-linguistic challenges, are mainly positive about studying Physics in English because of the personal and societal benefits. It was also revealed that the results from questionnaire and face-to face interviews, it can be seen that the answers may be divergent and convergent, and supplementary. Therefore, in the next section they are discussed and interpreted in more detail.

## **Chapter 5. Discussion**

While the previous chapter presented the findings of the study, the purpose of this chapter is to discuss these findings in order to shed light on CLIL implementation in Kazakhstani context through answering three research questions and by employing 4 Cs (Coyle, Hood & Marsh, 2010) as a conceptual framework. The research questions aimed to reveal students' attitudes and perceptions of CLIL, perceived benefits and challenges of CLIL, and the similarities and differences in attitudes and perceptions of students with 1, 2, and 3 year of study. Students in this study expressed their attitudes and perceptions of CLIL classes through two data collection instruments: one-on-one face to face interviews and paper-based questionnaire. In alignment with three research questions, this chapter discusses the possible explanation of the findings, interpretations, its connection to the existing body of literature and implications of the main findings. These results should be explained and interpreted with caution bearing in mind students' undeveloped maturity level.

### **RQ 1. What are Students' Attitudes and Perceptions of CLIL Classes in a Piloting School?**

The findings of the study demonstrated that all interview participants and majority of questionnaire respondents have positive attitudes toward studying Physics through English. Some questionnaire respondents hold neutral, and few negative attitudes. Absence of negative reports about CLIL from interviewees can be explained. Students might be reluctant or afraid to say negative things about this top-down policy, but reporting what is acceptable or thinking that they should say what the researcher wants to hear (Warwick & Chaplin, 2013). However, despite being mainly positive, students openly shared their challenges. Therefore, it can be assumed that they were frank in the interview. Moreover, all measures were taken to accommodate students in the interviews and questionnaires (Warwick & Chaplain, 2013).

The explanation of these attitudes may also be underpinned by Pickens's (2005) idea on how attitudes are formed. He stated that attitudes are formed as a result of "learning, modeling others, and our direct experiences with people and situations" (p.5). In other words, the attitudes of the students in this school may be formed as a result of their learning experiences in a classroom, interaction with the teachers, administrators, their parents, peers and also by the mass media.

As for the learning, participants learn from the various activities carried out through English. Students' attitudes can be formed from their overall exposition with English. If they struggle with English, their attitudes are negative, and vice versa. This was also confirmed by some of the interviewees.

Another factor that could have contributed to the answers of the students is "direct experiences with people and situations" (Pickens, 2005). In this study, teachers and administrators could be referred as *people* while an overall atmosphere in the school regarding trilingual policy as *situation*. According to the information on the school website, most of the seminars, round-table discussion topics are supportive of trilingual education. The school implements trilingual policy since 2006, and it is a strong proponent of this policy. Students are convinced that studying content subject through English is good and right. All these could serve as sources of information which is mostly in favor of trilingual education. It could be traced in their responses since majority of the interviewees were referring to the state goals, and policies. This result implies that positivity of students may increase their motivation and as a result their achievement.

Notably, the number of students who maintained neutral position was quite high (18 %), and most of them were students with 2 years of experience, which a transitional period when students move from studying terminology to studying subject in English. Students who

hold negative attitudes are also from this group. Neutrality *prima facie* may seem not very informative. In fact, neutral attitude may indicate indifference, detachment and complacency (Dhavale, 2016). As participant 2.1 noted in the previous chapter, in the second year of study students are required to use English more often than in the first year. In other words, student experience quick shift from easy to difficult. As a result, students may experience detachment that later would be reflected in the attitudes. As a result, their attitudes change from positive to neutral or negative. An implication of this is the possibility that they can lose their interest and motivation. It can therefore be assumed that the teachers should continuously support students, ensure that learning is gradual.

Explanation of negative attitude, can be related to the rigorousness of the Physics subject. As participants noted, Physics is one of the difficult subjects, thus studying it in English can add an extra layer of challenge for the students who already struggle with the subject. As a result, students do not benefit from CLIL, but conversely disadvantage because they are neither developing their English nor content knowledge. This finding has important implications for developing better language requirements to study content subjects through English.

Overall, these results on the attitudes toward CLIL are in consistence with the findings of most empirical studies (Czura and Papaja (2013), Lasagabaster & Doiz, 2016; Lasagabaster, Sierra, 2009; Vázquez, Molina & Ávila López, 2014; Wegner, 2012; Ikeda, 2013; Denman, J., Tanner, R., de Graaff, 2013) where students are mostly positive about studying content subjects through CLIL. Neutral and negative attitudes of students was also revealed in several previous studies (Coyle, 2013; Yassin, Idris, Marsh, Tek, Ying, 2009, Finardi, Silveira, de Alencar, 2016). However, only revealing their attitude does give much



information on CLIL implementation in a piloting school. Therefore, it is necessary to discuss the perceptions of students.

The second part of the first research question dealt with the exploration of the perceptions of the students. In summary, most of the students reported CLIL being an interesting, useful, necessary, difficult and lively subject. Similarly, these perceptions are associated with the three factors such as students' language proficiency, CLIL pedagogy and time as the international studies (Hüttner, Dalton-Puffer & Smit, 2013; Finardi, Silveira & de Alencar, 2016). However, due to the specifics of the contexts, the results of the present study do not fully correspond the previous studies. For example, students in this study found CLIL interesting mainly because of the integration of English and Physics which was a new phenomenon to them. Although the students in the studies of Coyle (2013) and Lancaster (2016) also described CLIL as interesting, but their results were caused by different factors. Students were interested by the organization of the lessons, and involvement of interesting and challenging activities. Therefore, even though all interviewees of the present study reported CLIL-based Physics as being an interesting subject, half of the questionnaire respondents were neutral to the statement 'CLIL is more interesting than other subjects'. These findings are rather disappointing. Students do find the integration of content matter with the language matter interesting, however, it does not make it more interesting than other subjects. Therefore, there is a risk that once students get used to this approach their interest may wane. In addition to that, students' perceptions associated with the liveliness of CLIL classes partially support the finding of Finardi et al. (2016). While the participants in my study perceived CLIL as lively because of the increased interaction between them geared to mutual assistance to deal with the difficulties, similar perception of the study of Finardi et al. (2016) was caused by the student-centered teaching methods with the use of communicative

activities. In fact, ideally in CLIL classes, students should not be active and sharing in order to survive in these classes, but to conduct meaningful discussions and solve tasks and problems. One of the issues that emerges from these findings is the CLIL pedagogy. They suggest that pedagogy that inherent to CLIL approach is missing in this context. Therefore, an important implication is to develop a proper CLIL pedagogy in the Kazakhstani context so that students would truly benefit from CLIL.

As for the usefulness, it is again due to the CLIL's two-fold aim, they believe that they are 'killing two birds'. Another perception was that CLIL is necessary. It is necessary because of English that would provide better career opportunities, and further education, also because of the school requirements. Some students perceived CLIL as "informative", "independence in working".

Another finding on the perceptions of the CLIL being a "tool to show the progress of Kazakhstan" indicates that students are familiar with the ambitious goals of the country such as entering thirty most developed countries in the world. These perceptions demonstrate the patriotic feeling of the students even though they are studying subjects in English.

To sum up, with respect to the first research question, it was revealed that students are mostly positive about CLIL, and have more positive perceptions than negative ones. In the broader context, these findings tally with the international studies. However, the explanation is different due to Kazakhstani context. Due to the dominance of the positive perceptions, it is likely that students will continue enjoying their CLIL classes. However, the negative and neutral attitudes of the 2- year study students are alarming. So, this finding has important implications for the necessity of supporting the students in this stage of learning.

When analyzing the findings, the 4 Cs conceptual framework was very useful. Since the present study aimed to identify the current state of CLIL implementation in a piloting

school, this framework served as a prerequisite for CLIL. The study explored how CLIL is implemented based on these 4 Cs and how students perceive it. The 4 Cs conceptual framework stands for content, communication, cognition and culture (Coyle et al, 2010). In this study, perceived interest of the students to CLIL is due to integration of subject matter with the language matter. They found it interesting because it was something new to them. As for the perceptions of usefulness, necessity and difficulty, they are all related to the English language. In other words, students comment on the two of four Cs: content and communication. The study did not reveal any findings related to other 2 Cs: cognition and culture. It seems possible that these results are due to absence of these 2 Cs in their CLIL classes. Therefore, according to these data, we can infer that in this context it is not a full-fledged CLIL approach, but *CLIL-like* approach. The absence of two components such as cognition and culture are may be due to the lack of proper CLIL training. As a result, it is not possible to fully benefit from CLIL approach. The present results are significant in at least two major respects. They allow policy makers and practitioners to build up on positive perceptions of students and work on reducing negative ones.

## **RQ 2: What Benefits and Challenges Do Students See in CLIL?**

The first part of the second question was to identify perceived benefits of studying Physics in English. The current study found that CLIL is beneficial for the students. Almost all students reported benefiting from CLIL in various ways.

The overriding finding was that CLIL has good impact on the English language acquisition. These results are in line with those of previous studies (Lancaster, 2016, Lasagabaster, Doiz, Sierra, 2009; Lasagabaster & Doiz, 2016) which revealed that CLIL had positive effects on speaking, vocabulary, pronunciation, and translation skills. Students saw Physics in English classes as the opportunity to practice their English. Similar findings were

revealed by Coyle (2013), Cross and Gearon (2013), Ikeda (2013). Their participants also reported the improvement of speaking and vocabulary.

Another important finding was that students believed their content knowledge is advancing learning terminology of Physics in English. One explanation for this finding is that students believe they will benefit from it in the future, especially those students who choose Physics as a major. In fact, many interview informants believe they will benefit in future education and career. This result may be explained by the fact that nowadays majority of high salary jobs positions require good English language proficiency. So, by studying content subjects in English students get more chances to be hired for these high- salary jobs. An alternative explanation could be that this benefit may not be their own believe, but what teachers and parents suggest their children. These findings support the previous research of Coyle (2013), in which his participants saw CLIL as an investment to their future. But in contract to Coyle (2013), students of this research see not only the benefits for their own self, but for the country by saying that CLIL is “tool to popularize Kazakh”, “tool to show how Kazakhstani is developed”. Similarly, the students of the study of Doiz et al. (2014) noted the importance of CLIL for their future. This finding show that students relate their CLIL experiences to their own lives. This may positively impact on CLIL implementation because understanding and seeing the importance of studying subjects in English can ensure longevity and success of the CLIL approach in Kazakhstan.

It is important to note that while 1-year students reported on the linguistic benefits, 2 and 3- year students acknowledge other benefits but including the linguistic ones. Older students appreciate that CLIL's benefits in a broader prospective; for example, better career opportunities, advanced level of studying content subjects.

## **RQ2. Perceived challenges of CLIL**

As for the challenges, the results of this study revealed various difficulties that students endure when studying content subjects in English. The most obvious challenge to emerge from the analysis are language difficulties. This challenge is the most common among participants. As a result, some students are experiencing problems with comprehension during the lesson. This may have negative impact on their academic progress and psychological state. This finding is compliant with many international studies also revealed language related difficulties among students of CLIL (Finardi, Silveira & de Alencar, 2016; Wegner, 2012; Herrera, 2015; Pladevall- Ballester, 2015). Since, English is only taught in classes and there is no English-speaking environment, students experience difficulties of mastering the language with the instruction of 2-3 hours a week. Although, majority of the students started learning English in grade one, it is difficult for them to study the Physics in English. Findings suggest that students in most cases have difficulties with speaking activities which requires production from the students.

Another important finding was that CLIL demands an intensive self-study; as a result, they experience shortage of time because they spend more time for self-preparation and home task. This finding indicate that students have to study harder for CLIL classes and are overloaded with work. One possible explanation can be derived from the students' answers. They noted that they have to learn the terminology by heart from the dictionary. This indicates on the still prevailing traditional teaching methods based on the memorization. Doiz et al. (2014) also found that students may be motivated about CLIL despite its difficulty, demand for extra effort and increased workload.

On the question of challenges, this study found that students experience psychological barriers too, for example, shyness, uncertainty, and worry. Interviewees noted that these

barriers were present only in the beginning of the program. This finding indicates that students need support during the first stages of implementation.

Although interview participants noted that the challenges are present only in the beginning of the study, questionnaire responses revealed different results. Many students experience difficulties during the lesson such as confusion, uncertainty and boredom. These findings may have arisen from the difficulties associated with the English language. As a result, students may feel uncertain about their abilities.

To conclude, I believe that these findings allowed me to answer the second research question on perceived benefits and challenges of CLIL. Overall, my findings suggest that students see both benefits and challenges of studying content subject in English within CLIL approach.

### **RQ 3. How Similar or Different the Attitudes and Perceptions of Students Based on the Year of Study?**

Analysis of students' answers revealed that regardless of their experience, students value CLIL because it is interesting, useful and necessary. As for the differences in perceptions, mainly students on the 2<sup>nd</sup> year of the program noted its difficulty. Even though only one interviewee noted that, I believe it is important because it explained the data very well. According to the participant, in the second year of study students are expected to use the language for learning and making meaning, and here students experience difficulties. They were not ready for that. Memorizing the terminology in the first year did not prepare them for being active CLIL learners. The 3-year students did not find it difficult. A possible explanation maybe that students get used to CLIL and made certain progress like in the study of Doiz et al., (2014).

The most prominent finding to emerge from the analysis is that the answers of students of different years of CLIL exposure differ. Younger students support their proneness to CLIL mostly by referring to the trilingual policy in the country, President's speech, and the importance of knowing three languages while older ones by providing their personal practical examples. The reason for this may be that at the beginning of the program students formulate their views based on the impact from the environment that is supportive of trilingual education, but when they grow they start to formulate their own views based on their experiences.

### **Conclusion**

This chapter showed that students' attitudes and perceptions of CLIL are impacted by three factors thus to some extent supporting the existing literature, and contradicting it due to the specifics of Kazakhstani context. Perceived benefits and challenges that students report indicate on the strong and weak points of CLIL implementation. Collectively, these findings indicate that it is important to pay heed to students' voices. The findings discussed in this chapter will be followed in the Conclusion chapter. In the conclusion chapter, I will discuss the limitations of the study, its significance, recommendations for stakeholders and directions for future research.

## **Chapter 6. Conclusion**

The final chapter of this thesis summarizes the major findings of the study, followed by implications drawn from the findings, recommendations for policy makers and practitioners, limitations and future areas of research. The purpose of the current study was to explore the attitudes and perceptions of students of a piloting school who studies content subjects through English. The study also aimed at exploring the perceived benefits and challenges of the CLIL program along with comparing the perceptions of 1<sup>st</sup> year, 2<sup>nd</sup> year and 3<sup>rd</sup> year students in CLIL.

### **Conclusions on Major Findings**

Regarding the first research questions, the study revealed that most of the students hold positive attitudes and perceive CLIL positively. However, some students and particularly students in their 2<sup>nd</sup> year demonstrated negativity toward CLIL. Students link their positive perceptions to the program's attractiveness, usefulness, necessity, novelty, liveliness while the negative ones to the program's complicacy and the need for extra effort stemmed from the English language. A conclusion can be drawn from this finding is that in the beginning of CLIL program students, where they only study the terminology, students like it, however, once program gets more rigorous, they are not that positive, and later they regain their positive attitude because they either overcame the difficulties or get used to the program. Our results also indicate that CLIL can be very effective approach that keeps students interested in learning English and content subjects through English. However, we should pay heed to students' negative attitudes and perceptions that later can result in low motivation, then low grades or even to drop out from the school. Since the root of this negativity lies on their insufficient level of English, students' language competence should first be developed



and supported throughout the whole program. Otherwise, they will not fully benefit from CLIL.

In regards the second research question, it was revealed that CLIL is beneficial for improving English language competence of students, for providing better opportunities and preparing for career and future education endeavors. However, despite being beneficial, CLIL has a range of challenges for students in terms of language, psychological barriers, and demand for intensive self-study. Hence, it can be concluded that CLIL is beneficial for Kazakhstani students: moreover, it urges students to be proactive and responsible for their own study and career but at the cost of extra efforts and struggles.

Thirdly, all students said CLIL is useful and interesting. As for the differences, perceptions of students of 1-year study are similar to the trilingual policy while elder students report more personal perceptions derived from their own experiences and observations. Students in the transitional period, mostly perceived CLIL as difficult.

Finally, the findings suggest that out of 4 Cs developed by Coyle et al. (2010), only 2Cs are present: content and communication, and communication implying only focusing on the enriching the vocabulary of the student. Students do not get necessary language support to succeed in CLIL due to lack of proper CLIL pedagogy. Absence of cognition and culture lead to traditional teaching methods, covering lower levels of Bloom' Taxonomy.

### **Implications and Recommendations**

These findings have significant implications for the understanding of how teaching and learning in CLIL classes are undertaken, how students perceive this practice, and what benefits and challenges they endure during their learning. Hence, the findings of this research may provide valuable insights for policy makers and practitioners.

**For policy.** Students' attitudes and perceptions of CLIL approach can impact on their motivation and un/favorable CLIL and trilingual education implementation. Based on student's responses, some policy interventions may be implemented for the effective implementation of CLIL programs in secondary schools of Kazakhstan. Since there is an absence of other 2 Cs (cognition, culture), and of language support for students, teachers should be trained in CLIL because CLIL teacher has two roles of an English and content subject teachers. It is desirable that the courses are regular and lengthy. According to SPED (MoES, 2016), the national plan for country-wide implementation resembles the one of the research site's plan (p. 6). Cautions to be made that students remain positive about it as in the beginning of the program when only terminology is introduced. This transitional period is crucial for maintaining positive attitude toward CLIL. Therefore, this result implies that in the transitional period, students need extra support. As findings of our study show, students need language and psychological support. Since, other mainstream schools will be studied in the same way, first terminology and then using the language, policy makers and should consider how to make this transition smooth. Provision of a guidelines and instructions for teachers and school administrations could be one solution.

**For practice.** Although, the following implications were made based on the findings of one case or one school, and we know each school is different in terms of resources, conditions, and etc., hopefully they can be applicable for the broader audiences. The recommendations for practice were drawn from the students' responses on the challenges they endure. It should be noted that teachers should be aware that all the challenges reported by students does not discourage students because they are convinced that CLIL is beneficial. However, still some current practices should be improved, and some created for the effective CLIL classes.

First, in the transitional period, school psychologists, teachers and administrators should support students psychologically through offering different trainings, round table discussion, and extra-curricular activities that would reduce stress and raise motivation. This would prevent students from building negative or neutral perceptions afterwards.

Secondly, continued efforts are needed for the development of quality teaching, language and content teachers may collaborate since they are both working on the improvement of students' language skills. Their collaboration may take various forms: peer coaching, partnership teaching, mentoring, team teaching and cross-curricular collaboration (Yuen, 2014; Crandall, J. 1998; Davison, 2006) forming an 'interdisciplinary team' (Yuen, 2014, p. 182). This collaboration can be especially beneficial for content teachers, where they could develop their language teaching methods. From the results of the study, it was clear that students do not get proper language instruction which is a cause of students' challenges.

Thirdly, conducting extra-curricular activities such as *Spelling Bee*, where students compete on their vocabulary knowledge. This game is especially effective in the beginning of the program when students only deal with the terminology. This would help them not only to revise the terminology, but also to raise motivation.

### **Limitations**

The major limitation of this study is the small sample size since it was case study. This makes these findings less generalizable to other schools of Kazakhstan. Although it is case study design, the findings offer valuable insights into CLIL implementation, on how student perceive it, what benefits and challenges they experience. Moreover, as this study explored the attitudes and perceptions of students, the findings should be interpreted with caution, because students might not be able to identify and articulate their thought well (Nunan & Bailey, 2009).

**Recommendations for Future Research**

The findings of this study indicate that the research topic is relevant actual and crucial, and needs further investigation by employing bigger sample and different context. To get more generalizable results, future studies can employ large-scale surveys with higher number of participants. In addition, a study that focuses on multiple stakeholders' views is necessary because it would shed more light and provide a holistic picture of into the case. Students' voices are important and informative; however, we cannot make big policy changes based only on students' voices. Therefore, in order to do that more time is needed. Another possible direction of the future studies can be investigation of CLIL's effectiveness to increase language proficiency and content knowledge; for example, experimental designs. It also would be interesting and useful to know whether students' perceptions are stable, and whether students see the benefits they listed when they go to university and work. So, longitudinal case studies should be undertaken to explore this.

### References

- Aguilar, M. & Muñoz, C. (2014). The effect of proficiency on CLIL benefits in Engineering students in Spain. *International Journal of Applied Linguistics*, 24(1), 1- 19. doi: 10.1111/ijal.12006
- Ashong, C. & Commander, N. (2017). Brazilian and Nigerian international students' conceptions of learning in Higher Education. *Journal of International Students*, 7(2), 163-187. Retrieved from <http://jistudents.org/>
- Banegas, D. L. (2014). Democratizing didactic transposition: Negotiations between learners and their teacher in a secondary school. *Latin American Journal of Content and Language Integrated Learning*, 7(2), 1-26. doi:10.5294/lacil.2014.7.2.1
- Baitukenov, T. (2016, August 12). Trilingualism: Utopia or reality? Retrieved from <http://news.1.kz/news/trekhjazychie---utopija-ili-realnoct.html>
- Baynieva, K. & Umurzakova, A. (2015). Functional significance of using trilingual dictionaries in the multilingual education. *International Journal of applied and fundamental research*, 8(4), 776-779. Retrieved from <http://www.applied-research.ru/pdf/2015/8-4/7240.pdf>
- Baynieva, K. & Umurzakova, A. (2016). The role of the authentic texts in in the multilingual education. *International Journal of Experimental Education*, 2(2), 227-231. Retrieved from <http://www.expeducation.ru/pdf/2016/2-2/9562.pdf>
- Behlol, M. G., & Dad, H. (2010). Concept of learning. *International Journal of Psychological Studies*, 2(2), 231. doi:<http://dx.doi.org/10.5539/ijps.v2n2p231>
- Bekenova, A. (2016). Content and Language Integrated Learning (CLIL) as a response to the

- implementation of trilingual education: Teachers' perceptions, practices, and challenges [PowerPoint slides]. Retrieved from [http://conferences.nis.edu.kz/?page\\_id=3306&lang=en](http://conferences.nis.edu.kz/?page_id=3306&lang=en)
- Bekova, M. (2016). Students' perceptions of teaching and learning process within trilingual educational programs of study in one Kazakhstani state university. [PowerPoint slides]. Retrieved from [http://conferences.nis.edu.kz/?page\\_id=3306&lang=en](http://conferences.nis.edu.kz/?page_id=3306&lang=en)
- Bonnet, A. (2012). Towards an evidence base for CLIL. How to integrate qualitative and quantitative as well as process, product and participant perspectives in CLIL research. *International CLIL Research Journal*, 1(4). Retrieved from <http://www.icrj.eu/14/article7.html>
- Briggs, A.R.J. & Coleman, M. (Eds.). (2007). *Research methods in educational leadership and management*. London: SAGE Publications
- Cenoz, J., Hufeisen, B., & Jessner, U. (2001). Towards Trilingual Education. *International Journal of Bilingual Education and Bilingualism*, 4(1), 1-10.  
doi:10.1080/13670050108667714
- Cenoz, J. (2013). Defining multilingualism. *Annual Review of Applied Linguistics*, 33, 3-18.  
doi:10.1017/S026719051300007X
- Coyle, D. (1999). Theory and planning for effective classrooms: Supporting students in content and language integrated learning contexts' in Masih, J. (Ed): *Learning Through a Foreign Language*. London: CILT
- Coyle, D. (2006). CLIL in Catalonia, from Theory to Practice. APAC Monographs, 6. Gerona: APAC.
- Coyle, D. (2007). CLIL: towards a connected research agenda for CLIL pedagogies. *International Journal of Bilingual Education and Bilingualism*,

10(5), 543-562. doi:<http://dx.doi.org/10.2167/beb459.0>

Coyle, D., Hood, P. & Marsh, D. (2010) *CLIL: Content and Language Integrated Learning*. Cambridge: Cambridge University Press.

Coyle, D. (2013). Listening to learners: An investigation into 'successful learning' across CLIL contexts. *International Journal of Bilingual Education and Bilingualism*, 16, 244-266. doi:10.1080/13670050.2013.777384

Cross, R. & Gearon, M. (2013). Research and evaluation of the content and language integrated learning (CLIL) approach in teaching and learning languages in Victorian schools. *The University of Melbourne, Graduate school of education*. Retrieved from [www.education.unimelb.edu.au](http://www.education.unimelb.edu.au)

Czura, A. & Papaja, K. (2013). Curricular models of CLIL education in Poland. *International Journal of Bilingual Education and Bilingualism*, 16(3), 321-333. doi:10.1080/13670050.2013.777388

Dalton-Puffer, C., Hüttner, J., Schindelegger, V. & Smit, U. (2009). Technology-geeks speak out: what students think about vocational CLIL. *International CLIL Research Journal*, 1(2), 19-25. Retrieved from <http://www.icrj.eu/21/article3.html>

de Graaff, R. & Koopman, J. & Anikina Y. & Westhoff, G. (2007). An observation tool for effective L2 pedagogy in Content and Language Integrated Learning (CLIL). *International Journal of Bilingual Education and Bilingualism*, 10(5), 603-62. Retrieved from <http://dx.doi.org/10.2167/beb462.0>

Denman, J., Tanner, R & de Graaff, R. (2013). CLIL in junior vocational secondary education: challenges and opportunities for teaching and learning. *International Journal of Bilingual Education and Bilingualism*, 16(3), 285-300. doi: 10.1080/13670050.2013.777386

- Doiz, A., Lasagabaster, D., & Sierra, J. M. (2014). Giving voice to the students: What (de)motivates them in CLIL classes? In D. Lasagabaster, A. Doiz, & J. M. Sierra (Eds.), *Motivation and foreign language learning: From theory to practice* (pp. 117-138). Amsterdam: John Benjamins.
- Driscoll, M. (2000). *Psychology of Learning for Instruction*. Needham Heights, MA, Allyn & Bacon.
- Finardi, K., Silveira, N. & de Alencar, G. (2016). First aid and waves in English as a foreign language: Insights from CLIL in Brazil. *Electronic Journal of Science Education*, 20(3), 11-30. Retrieved from <http://ejse.southwestern.edu>
- Garret, P. (2010). *Attitudes to language*. Retrieved from <https://books.google.kz/books?id=BdAE2ZnBfocC&pg=PA20&lpg=PA20&dq=a+disposition+to+react+favourably+or+unfavourably+to+a+class+of+objects&source=bl&ots=WidMMW0JEy&sig=KULAMZR2mO4ufYnPsZJStjGv0q8&hl=en&sa=X&ved=0ahUKEwiuqOOqr-TAhVLEywKHQWIAXUQ6AEIIDA#v=onepage&q&f=false>
- Goldstein, E. B., & Brockmole, J. (2016). *Sensation and perception*. Cengage Learning.
- Griggs, R. A. (2010). *Psychology: A concise introduction*. Macmillan.
- Henn-Reinke, K. (2012). Considering trilingual education. Routledge Research in Education
- Herrera, L.R. (2015). Mexican secondary school students' perception of learning the history of Mexico in English. *Profile Issues in Teachers' Professional Development*, 17(1), 105-120. <http://dx.doi.org/10.15446/profile.v17n1.44739>.
- Huang, D. (2015). Exploring and assessing effectiveness of English medium instruction courses: The students' perspectives. *Social and Behavioral Sciences*, 173, 71 – 78. doi:10.1016/j.sbspro.2015.02.033
- Hunt, M. (2011). Learners' perceptions of their experiences of learning subject content



- through a foreign language. *Educational Review, Aquatic* 63(3), 365–378. doi: 10.1080/00131911.2011.571765
- Hüttner, J., Dalton-Puffer, C. & Smit, S. (2013). The power of beliefs: lay theories and their influence on the implementation of CLIL programmes. *International Journal of Bilingual Education and Bilingualism*, 16(3), 267-284, doi: 10.1080/13670050.2013.777385
- Ikeda, M. (2013). Does CLIL work for Japanese secondary schools? *International CLIL Research Journal*, 2 (1), 31-43. Retrieved from <http://www.icrj.eu/21/article3.html>
- Irsaliev, S., Karabassova, Ch., Mukhametzhanova, A., Adil, A., Bekova, M. & Nurlanov, Y. (2017). Teaching in three languages: International experience and recommendations for Kazakhstan. Retrieved from <http://iac.kz/ru>
- Kanafina, J. (2014, March 14). Trilingualism in Kazakhstan: Problems and prospects. Retrieved from <https://www.caravan.kz/gazeta/trekhyazychie-v-kazakhstane-problemy-i-perspektivy-76013/>
- Kasenova, A. (2016, April 22). Ministr obrazovaniya i nauki o letnich kanikulakh, trekhyazychii i budushem kazakhskogo yazyka. [Minister of Education and Science on summer holidays, trilingualism and future of the Kazakh language]. Retrieved from <https://tengrinews.kz/conference/150/>
- Kiraz, A., Güneyli, A., Baysen, A., Gündüz, S. & Baysen, F. (2010). Effect of science and technology learning with foreign language on the attitude and success of students. *Procedia Social and Behavioral Sciences* 2, 4130–4136. doi: 10.1016/j.sbspro.2010.03.652
- Lancaster, N. (2016). Stakeholder Perspectives on CLIL in a Monolingual Context. *English Language Teaching*, 9(2), 148-177. doi: 10.5539/elt.v9n2p148

- Lasagabaster, D. & Doiz, A. (2016). CLIL students' perceptions of their language learning process: delving into self-perceived improvement and instructional preferences. *Language Awareness*, 25(1-2), 110-126. doi: 10.1080/09658416.2015.1122019
- Lasagabaster, D., Sierra, J.M. (2009). Language attitudes in CLIL and traditional efl classes. *International CLIL Research Journal*, 1(2), 4-17. Retrieved from <http://www.icrj.eu/12/article1.html>
- Learning. (n.d.). In *Merriam-Webster online*. Retrieved from <http://www.merriam-webster.com/dictionary/learning>
- Mamashuly, A. (2016, June 29). When discussing on trilingualism, it was said “destroying a nation”. Retrieved from <https://rus.azattyq.org/a/slushania-trekhyazychnoe-obrazovanie/27827432.html>
- Marsh, D. (2002). *CLIL/EMILE: The European dimension: Actions, trends and foresight potential*. European Commission. [http://ec.europa.eu/education/languages/pdf/doc491\\_en.pdf](http://ec.europa.eu/education/languages/pdf/doc491_en.pdf).
- Marsh, D. (2008). Language awareness and CLIL. In J. Cenoz & N. H. Hornberger (Eds.), *Encyclopedia of language and education: Volume 6: Knowledge about language* (2nd ed.) (pp. 233-246). New York: Springer.
- Massler, U. (2012). Primary CLIL and its stakeholders: what children, parents and teachers think of the potential merits and pitfalls of CLIL modules in primary teaching? *International CLIL Research Journal*, 1 (4), 36-46. Retrieved from <http://www.icrj.eu/14/article4.html>
- Magzumova, A. Mind the gap: towards an understanding of the implementation process of Trilingual Education Policy at the Nazarbayev Intellectual Schools. *Proceedings from VII International Research-to-Practice conference*. Astana: NIS

- Marsh, D. (2009). CLIL: An interview with Professor David Marsh. Retrieved from *International house journal of education and development*, 26. Retrieved from <http://ihjournal.com/content-and-language-integrated-learning>
- MoES. (2013). Orta mektepte okytu procesinde koptildilikti damytu maseleleru. On developing multilingualism in secondary schools. Retrieved from [icrov-pvl.gov.kz/loader/load/46](http://icrov-pvl.gov.kz/loader/load/46)
- MoES. (2015). Dorozhnaya karta razvitiya trekhyazychnogo obrazovaniya na 2015-2020. [Roadmap of Trilingual Education Development for 2015-2020]. Retrieved from <http://umckrg.gov.kz/content/view/1/478>
- MoES. (2015). Dorozhnaya karta razvitiya trekhyazychnogo obrazovaniya na 2015-2020. [Roadmap of Trilingual Education Development for 2015-2020]. Retrieved from <http://umckrg.gov.kz/content/view/1/478>
- MoES. (2016). State Program of Education and Science Development for 2016- 2019. Retrieved April, 30, from <http://www.edu.gov.kz/ru/gosudarstvennaya-programma-razvitiya-obrazovaniya-i-nauki-respubliki-kazahstan-na-2016-2019-gody>
- Nazarbayev, N. (1996). Concept of language policy in Kazakhstan. Retrieved from [http://kazakhstan.news-city.info/docs/sistemsl/dok\\_pegfto.htm](http://kazakhstan.news-city.info/docs/sistemsl/dok_pegfto.htm)
- Nazarbayev, N. (2012). The message of the president of the Republic of Kazakhstan N. Nazarbayev to the people of Kazakhstan. Strategy- 2050: the new political course of the established state, Astana. Retrieved from <https://strategy2050.kz/ru>
- Nazarbayev, N. (2012). Strategy-2050. Retrieved from [http://www.akorda.kz/ru/official\\_documents/strategies\\_and\\_programs](http://www.akorda.kz/ru/official_documents/strategies_and_programs)
- Nazarbayev, N. (2015). 100 Concrete Steps. Retrieved from <http://www.kazembassy.org.uk/en/pages/page/82>

- Oskolkova, A. (2014). The significance of content and language-integrated learning of the English language. The Kazakh-American Free University Academic Journal, 6. Retrieved from <http://www.kafu-academic-journal.info/journal/6/180/>
- Pladevall-Ballester, E. (2015) Exploring primary school CLIL perceptions in Catalonia: students', teachers' and parents' opinions and expectations. *International Journal of Bilingual Education and Bilingualism*, 18(1), 45-59. doi: 10.1080/13670050.2013.874972
- Pérez-Cañado, M. L. (2012). CLIL research in Europe: past, present, and future. *International Journal of Bilingual Education and Bilingualism*, 15(3), 315-341. doi: 10.1080/13670050.2011.630064
- Perception. (n.d.). In *Merriam-Webster online*. Retrieved from <http://www.merriam-webster.com/dictionary/perception>
- Ruiz de Zarobe, Y. (2008). CLIL and foreign language learning: a longitudinal study in the Basque Country. *International CLIL Research Journal*, 1(1), 60-73. Retrieved from <http://www.icrj.eu/11/article5.html>
- Roiha, A.S. (2014) Teachers' views on differentiation in content and language integrated learning (CLIL): Perceptions, practices and challenges. *Language and Education*, 28(1), 1-18. doi: 10.1080/09500782.2012.748061
- Shegenova, Z. (2016). Advantages and disadvantages in teaching History of Kazakhstan in Kazakh (L2) [PowerPoint slides]. Retrieved from [http://conferences.nis.edu.kz/?page\\_id=3306&lang=en](http://conferences.nis.edu.kz/?page_id=3306&lang=en)
- Smala, S. (2013). Content and Language Integrated Learning (CLIL) pedagogies in Queensland. *International Journal of Pedagogies & Learning*, 8(3), 194- 205. doi: 10.5172/ijpl.2013.8.3.194

- Smith, M. K. (2003). Learning theory. *The Encyclopedia of Informal Education*. Retrieved January 4, 2008, from <http://www.infed.org/biblio/b-learn.htm>
- Tedick, D. & Cammarata, L. (2012). Content and language integration in K–12 contexts: Student outcomes, teacher practices, and stakeholder perspectives. *Foreign Language Annals*, 45(1), 28-53.
- The Law of the Republic of Kazakhstan. (1997). On languages in the Republic of Kazakhstan” of July 15, 1997. Retrieved from [http://online.zakon.kz/Document/?doc\\_id=1008034](http://online.zakon.kz/Document/?doc_id=1008034)
- The Order of the President of Kazakhstan “On the concept of language policy in the Republic of Kazakhstan” (1996). Retrieved from [http://kazakhstan.newscity.info/docs/sistems/dok\\_pegftfo.htm](http://kazakhstan.newscity.info/docs/sistems/dok_pegftfo.htm)
- Tsuchiya, K. & Pérez Murillo, M. (2015). Comparing the language policies and the students’ perceptions of CLIL in tertiary education in Spain and Japan. *Latin American Journal of Content and Language Integrated Learning*, 8, 25-35. doi: 10.5294/lacil.2015.8.1.3
- Urmeneta, CE. (2013) Learning to become a CLIL teacher: teaching, reflection and professional development. *International Journal of Bilingual Education and Bilingualism*, 16(3), 334-353. doi: 10.1080/13670050.2013.777389
- Vázquez, V.P., Molina, M.P. & Ávila López, F.J. (2014). Perceptions of teachers and students of the promotion of interaction through task-based activities in CLIL. *Porta Linguarum*, 23, 75-91. Retrieved from [http://www.ugr.es/~portal/in/articulos/PL\\_numero23/5%20%20Victor%20Pavon.pdf](http://www.ugr.es/~portal/in/articulos/PL_numero23/5%20%20Victor%20Pavon.pdf)
- van Dijk, T. A. (2009). Critical discourse studies: a sociocognitive approach. In Wodak, R., & Meyer, M. (Eds.), *Methods for critical discourse analysis* (pp. 62-86). Sage.
- Wegner, A. (2012). Seeing the bigger picture: what students and teachers think about CLIL.

- International CLIL Research Journal*, 1 (4), 29-35. Retrieved from <http://www.icrj.eu/12/article2.html>
- Wiesing, L. (2016). *The Philosophy of Perception*. Norfolk: Bloomsbury Publishing Plc.
- Yamano, Y. (2013). CLIL in a Japanese primary school: exploring the potential of CLIL in a Japanese EFL context. *International CLIL Research Journal*, 2 (1), 19-30. Retrieved from <http://www.icrj.eu/21/article2.html>
- Yassin, S., Idris, S., Marsh, D., Tek, O.E. & Ying, L. Y. (2009). Learners' perceptions towards the teaching of science through English in Malaysia: a quantitative analysis. *International CLIL Research Journal*, 1 (2), 54-69. Retrieved from <http://www.icrj.eu/12/article6.html> 54
- Yuen, Y. (2014). Collaboration between L2 and content subject teachers in CBI: contrasting beliefs and attitudes. *RELC Journal*, 45(2), 181– 196. doi: 10.1177/0033688214535054
- Zharkynbekova, S., Akynova, D., Aimoldina, A (2013). Multicultural situation in Kazakhstan: aspects of language studies. *World Applied Sciences Journal* (Education, Law, Economics, Language and Communication), 27(13), 32-37. doi: 10.5829/idosi.wasj.2013.27.elelc.8
- Zharkynbekova, S., Aimoldina, A., Akynova, D., Abaidilda, A. & Kuzar, Z. (2014). The Role of Multilingual Education in the Process of Kazakhstani Identity Formation. *Social and Behavioral Sciences*, 143, 217-221. doi: 10.1016/j.sbspro.2014.07.391
- Zhetpisbayeva, B. & Arinova, O. (2012). Ot idei Triadinstvo yazykov N.A.Nazarbayeva do poliyazychnogo obrazovaniya v Kazakhstane. [From the idea of Trinity of languages to polylingual education in Kazakhstan]. *Vestnik KarGU*. Retrieved from <https://articlekz.com/article/5831>

## *Appendix A*

### INFORMED CONSENT FORM FOR THE HEAD TEACHER

“Students’ perceptions of their learning experiences in Content Language Integrated Learning classrooms in a piloting school”

This study has been approved by the Research Committee of the Graduate School of Education at Nazarbayev University. Thank you for your interest in taking part in this research. Before you agree to take part, you must be sure that you fully understand the project.

The study aims to explore students’ perceptions of their learning experiences in the classes where subjects are taught English. The study aims to explore how students perceive studying Physics in English, what benefits and challenges they see in these lessons to understand the implementation of trilingual education, and the ways how it could be improved. The students will be asked to answer closed- ended questions in the questionnaire and take part in the face-to face interview.

**RISKS AND BENEFITS:** The risks associated with this study are minimal. The study is not carried out to make judgements about the students or the school, but to draw general understanding of the students’ perceptions.

The benefits which may reasonably be expected to result from this study are that student’s voice will be heard and analyzed, consequently it can be used to improve the quality of education. The research will allow stakeholders in education to understand trilingual education implementation and add to the knowledge of Kazakhstani and international body of research. Also, students will gain an experience in participating in the research study; this will enable them to express their view, realize that their voice is important, and think about their learning.

**TIME INVOLVEMENT:** The study will begin on the 5<sup>th</sup> of December and end on the 16<sup>th</sup> of December. The questionnaire will take 10 min and interview 30 min.

**SUBJECT'S RIGHTS:** If you have read this form and have decided to participate in this study, please understand your participation is voluntary. The study will begin after parental consent. You and parents have the right to withdraw consent or discontinue participation at any time without penalty or loss of benefits to which they are otherwise entitled. Students have the right to refuse to answer particular questions. Students’ individual privacy will be maintained in all published and written data resulting from the study.

**CONTACT INFORMATION:**

**Questions:** If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, you should ask the Master’s thesis Supervisor, (Sulushash Kerimkulova, skerimkulova@nu.edu.kz and tel. +7 7172 706144(w) mob. +7 775 9999167).

**Independent Contact:** If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the NUGSE Research Committee to speak to someone independent of the research team at +7 7172 709359. You can also write an email to the NUGSE Research Committee at [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

I (we) have read the information above and hereby consent to have my (our) child participate in this study by signing below.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**The extra copy of this signed and dated consent form is for you to keep.**

**ЗЕРТТЕУ ЖҰМЫСЫ КЕЛІСІМІНІҢ АҚПАРАТТЫҚ ФОРМАСЫ**

Мектеп директоры үшін

«Үш тілде оқытатын мектеп оқушыларының жаратылыстану- математика бағытындағы пәндерді ағылшын тілінде оқуға көзқарасы»

Бұл зерттеу жұмысы Назарбаев Университетінің Жоғары білім беру мектебінің Зерттеу Комитетімен мақұлданды. Зерттеуге қатысуға қызығушылық танытқаныңыз үшін алғыс білдіреміз. Зерттеуге қатыспастан бұрын, зерттеу жұмысымен танысып шығыңыз.

Бұл зерттеу жұмысы үш тілде оқытатын мектеп оқушыларының жаратылыстану- математика бағытындағы пәндерді ағылшын тілінде оқуға көзқарасын анықтауға бағытталған. Оқушылар физика пәнін шет тілінде оқуға көз-қарасын сұғбат және сауалнама сұрақтарына жауап беру арқылы білдіреді. Сұғбатқа физиканы ағылшын тілінде оқитын әр сыныптап бір оқушыдан, ал сауалнамаға барлық оқушы шақырылатын болады.

**ӨТКІЗІЛЕТІН УАҚЫТЫ:** Зерттеу 5-ші желтоқсанда басталып, 15- ші желтоқсанда аяқталады. Сауалнама сұрақтарына жауап беру шамамен 10 минут уақыт алады, ал сұғбат 15 минут.

**ЗЕРТТЕУ ЖҰМЫСЫНА ҚАТЫСУДЫҢ ҚАУІПТЕРІ МЕН АРТЫҚШЫЛЫҚТАРЫ:**

Зерттеу жұмысына қатысудың қауіптері шамалы. Зерттеу оқушыларды немесе мектепті сынау мақсатында өткізілмейді, тек отандық және әлемдік ғылымға үлес қосу мақсатында жүргізіліп отыр. Зерттеу толық анонимді болып табылады. Еш жерде оқушының, мектептің жеке ақпараты аталмайтын болады. Ал жиналған ақпаратты талдау барысында, әр оқушыға нөмір тағайындалатын болады. Зерттеу жұмысына қатысуыңыздың келесідей артықшылықтары болуы мүмкін: оқушылардың көзқарасы зерттеліп, оған назар аударылады. Зерттеу нәтижелері білім саласының қызметкерлеріне үш тілді оқытудың қазіргі жағдайын анықтауға септігін тигізетін болады деп күтіледі. Сонымен қатар, оқушылар зерттеуге қатысу арқылы өздерінің пікірі маңызды екенін ұғынады, және өз оқуларына қатысты толғанады.

**ҚАТЫСУШЫ ҚҰҚЫҚТАРЫ:** Егер Сіз берілген формамен танысып, зерттеу жұмысына қатысуға шешім қабылдасаңыз, Сіздің қатысуыңыз **ерікті** түрде екенін хабарлаймыз. Зерттеу ата-аналардан рұқсат алынғаннан кейін басталатын болады. Сонымен қатар, Сіздің, ата-аналардың және оқушылардың кез келген уақытта зерттеу жұмысына қатысу туралы келісімдеріңізді кері қайтаруға немесе тоқтатуға құқығыңыз бар. Зерттеу жұмысына мүлдем қатыспауыңызға да толық құқығыңыз бар. Сондай-ақ, оқушыларға қандай да бір сұрақтарға жауап бермеулеріне де әбден болады. Бұл зерттеу жұмысының нәтижелері академиялық немесе кәсіби мақсаттарда баспаға ұсынылуы немесе шығарылуы мүмкін.

**БАЙЛАНЫС АҚПАРАТЫ:**

**Сұрақтарыңыз:** Егер жүргізіліп отырған зерттеу жұмысының процесі, қауіп мен артықшылықтары туралы сұрағыңыз немесе шағымыңыз болса, келесі байланыс құралдары арқылы зерттеу жұмысының жетекшісімен хабарласуыңызға болады. Сулушаш Керимкулова, Назарбаев Университетінің Жоғары білім беру мектебінің профессоры, [skerimkulova@nu.edu.kz](mailto:skerimkulova@nu.edu.kz), тел.: +7 7172 706144 (жұм) ұялы тел.: +7 775 9999167

**ДЕРБЕС БАЙЛАНЫС АҚПАРАТТАРЫ:** Егер берілген зерттеу жұмысының жүргізілуімен қанағаттанбасаңыз немесе сұрақтарыңыз бен шағымдарыңыз болса, Назарбаев Университеті Жоғары Білім беру мектебінің Зерттеу Комитетімен көрсетілген байланыс құралдары арқылы хабарласуыңызға болады: +7 7172 70 93 59, электрондық пошта [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz).

Зерттеу жұмысына қатысуға келісіміңізді берсеңіз, берілген формаға қол қоюыңызды сұраймыз.

- Мен берілген формамен мұқият таныстым;



- Маған зерттеу жұмысының мақсаты мен оның процедурасы жайында толық ақпарат берілді;
- Жинақталған ақпарат пен құпия мәліметтерге тек зерттеушінің өзіне қолжетімді және мәлім болатынын толық түсінемін;
- Мен кез келген уақытта ешқандай түсініктемесіз зерттеу жұмысына қатысудан бас тартуыма болатынын түсінемін;
- Мен жоғарыда аталып өткен ақпаратты саналы түрде қабылдап, осы зерттеу жұмысына қатысуға өз келісімімді беремін.

Қолы: \_\_\_\_\_

Күні: \_\_\_\_\_

**Форманың бір данасы Сізде қалады**

### PARENTAL INFORMED CONSENT FORM FOR RESEARCH INVOLVING CHILDREN

“Students’ perceptions of their learning experiences in Content Language Integrated Learning classrooms in a piloting school”

Your child has been invited to participate in a study that aims to explore students’ perceptions of their learning experiences in the classes where subjects are taught English. The study aims to explore how students perceive studying Physics in English, what benefits and challenges they see in these lessons to understand the implementation of trilingual education, and the ways how it could be improved. Your child was chosen randomly to participate in the second stage of the research- one-on- one interview. During the interview your child will be asked to answer questions related to his/her perceptions of the content and language integrated leaning. The collected data will be stored securely in the researcher’s computer, and only researcher will have the access. At the end of the study, all the documents will be destroyed

**RISKS AND BENEFITS:** The risks associated with this study are minimal. The participation in the study will not affect the grade of your child. The study is not carried out to make judgements about the students or school, but to draw general understanding of the students’ perceptions. The interview can take place in one of the offices, only you and your child will now what office, or outside the school. If you consent the participation, please indicate your phone number so I can contact you and decide on the interview site. During the interview, I will take notes. No voice or video recording instrument will be used. The anonymity is guaranteed. No personal identifiers will appear in any documents, reports. The names of the participants will not be revealed; a number will be assigned to each participant.

The benefits which may reasonably be expected to result from this study are that your child’s voice will be heard and analyzed, consequently it can be used to improve the quality of education in your school and beyond. The research will allow stakeholders in education to understand trilingual education implementation and add to the knowledge of Kazakhstani and international body of research. Also, your child will gain an experience in participating in the research study; this will enable him/her to express his/her view, realize that his/her voice is important, and think about his/her learning.

**TIME INVOLVEMENT:** The interview will take 15 min.

**SUBJECT'S RIGHTS:** If you have read this form and have decided to allow your child/student to participate in this study, please understand your child’s participation is voluntary and your child has the right to withdraw his/her consent or discontinue participation at any time without penalty or loss of benefits to which he/she is otherwise entitled. Your child has the right to refuse to answer particular questions. Your child’s individual privacy will be maintained in all published and written data resulting from the study.

**CONTACT INFORMATION:**

**Questions:** If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, you should ask the Master’s thesis Supervisor, (Sulushash Kerimkulova, skerimkulova@nu.edu.kz and tel. +7 7172 706144(w) mob. +7 775 9999167).

**Independent Contact:** If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the NUGSE Research Committee to speak to someone independent of the research team at +7 7172 709359. You can also write an email to the NUGSE Research Committee at [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

I (we) have read the information above and hereby consent to have my (our) child participate in this study by signing below.

\_\_\_\_\_  
Signature(s) of Parent(s) or Guardian

\_\_\_\_\_  
Date

Your phone number: \_\_\_\_\_

**The extra copy of this signed and dated consent form is for you to keep.**

**PARENTAL INFORMED CONSENT FORM  
FOR RESEARCH INVOLVING CHILDREN**

“Students’ perceptions of their learning experiences in Content Language Integrated Learning classrooms in a piloting school”

Your child has been invited to participate in a study that aims to explore students’ perceptions of their learning experiences in the classes where subjects are taught English. The study aims to explore how students perceive studying Physics in English, what benefits and challenges they see in these lessons in order to understand the implementation of trilingual education, and the ways how it could be improved. Your child will be asked to answer closed- ended questions in the questionnaire by ticking off the answer that best describes his/her position.

**RISKS AND BENEFITS:** The risks associated with this study are minimal. The participation in the study will not affect the grade of your child. The study is not carried out to make judgements about the students or school, but to draw general understanding of the students’ perceptions. In the questionnaire, your child will put a tick next to the answer that he/she thinks it describes the situation and position best. The anonymity is guaranteed. No personal identifiers will appear in any documents, reports. The names of the participants will not be revealed; a number will be assigned to each participant.

The benefits which may reasonably be expected to result from this study are as following: your child’s voice will be heard and analyzed, consequently it can be used to improve the quality of education in your school and beyond. The research will allow stakeholders in education to understand trilingual education implementation and add to the knowledge of Kazakhstani and international body of research. Also, your child will gain an experience in participating in the research study; this will enable him/her to express his/her view, realize that his/her voice is important, and think about his/her learning.

**TIME INVOLVEMENT:** The questionnaire will take 10 min.

**SUBJECT'S RIGHTS:** If you have read this form and have decided to allow your child/student to participate in this study, please understand your child’s participation is voluntary and your child has the right to withdraw his/her consent or discontinue participation at any time without penalty or loss of benefits to which he/she is otherwise entitled. Your child has the right to refuse to answer particular questions. Your child’s individual privacy will be maintained in all published and written data resulting from the study.

**CONTACT INFORMATION:**

**Questions:** If you have any questions, concerns or complaints about this research, its procedures, risks and benefits, you should ask the Master’s thesis Supervisor, (Sulushash Kerimkulova, [skerimkulova@nu.edu.kz](mailto:skerimkulova@nu.edu.kz) and tel. +7 7172 706144(w) mob. +7 775 9999167).

**Independent Contact:** If you are not satisfied with how this study is being conducted, or if you have any concerns, complaints, or general questions about the research or your rights as a participant, please contact the NUGSE Research Committee to speak to someone independent of the research team at +7 7172 709359. You can also write an email to the NUGSE Research Committee at [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

I (we) have read the information above and hereby consent to have my (our) child participate in this study by signing below.

\_\_\_\_\_  
Signature(s) of Parent(s) or Guardian

\_\_\_\_\_  
Date

**The extra copy of this signed and dated consent form is for you to keep.**

**ЗЕРТТЕУ ЖҰМЫСЫ КЕЛІСІМІНІҢ АҚПАРАТТЫҚ ФОРМАСЫ**

Құрметті ата-ана,

Сіздің балаңыз “Үш тілде оқытатын мектеп оқушыларының жаратылыстану- математика бағытындағы пәндерді ағылшын тілінде оқуға көзқарасы” атты зерттеу жұмысына қатысуға шақырылып отыр. Зерттеудің мақсаты- жаратылыстану- математика бағытындағы пәндерді ағылшын тілінде оқуға деген оқушылардың көз- қарасын анықтау. Сіздің балаңызға физика пәнін ағылшын тілінде оқу туралы өз көз- қарасын білдіру үшін сауалнама сұрақтарына жауап беру ұсынылады.

**ӨТКІЗІЛЕТІН УАҚЫТЫ:** Балаңыздың сауалнамаға жауап беруі шамамен 10 минут уақыт алады.

**ЗЕРТТЕУ ЖҰМЫСЫНА ҚАТЫСУДЫҢ ҚАУІПТЕРІ МЕН АРТЫҚШЫЛЫҚТАРЫ:**

Зерттеу жұмысына қатысудың қауіптері шамалы. Зерттеуге қатысу/қатыспау балаңыздың бағасына әсер етпейді. Зерттеу отандық және әлемдік ғылымға үлес қосу мақсатында жүргізіліп отыр. Зерттеу толық анонимді болып табылады. Еш жерде оқушының жеке ақпараты аталмайтын болады. Жиналған сауалнамалар сенімді жерде сақталатын болады, олар тек зерттеушіге ғана қол жетімді болады. Ал зерттеу аяқталғаннан кейін сауалнамалар жойылатын болады.

Зерттеу жұмысына қатысуыңыздың келесідей артықшылықтары болуы мүмкін: балаңыздың жеке көзқарасы зерттеліп, оған назар аударылады. Зерттеу нәтижелері білім саласының қызметкерлеріне үш тілді білім берудің жүзеге асырылуын анықтауға өз үлесін қосатын болады. Сонымен қатар, балаңыз зерттеуге қатысу арқылы оның пікірі маңызды екенін ұғынады, және өз оқуына қатысты толғанады.

**ҚАТЫСУШЫ ҚҰҚЫҚТАРЫ:** Егер Сіз берілген формамен танысып, балаңыздың зерттеу жұмысына қатысуға келісіміңізді берсеңіз, Сіздің қатысуыңыз **ерікті** екенін хабарлаймыз. Сонымен қатар, **қалаған уақытта зерттеу жұмысына қатысу туралы келісіміңізді кері қайтаруға немесе тоқтатуға құқығыңыз бар. Зерттеу жұмысына мүлдем қатыспауыңызға да толық құқығыңыз бар.** Бұл зерттеу жұмысының нәтижелері академиялық немесе кәсіби мақсаттарда баспаға ұсынылуы және шығарылуы мүмкін.

**БАЙЛАНЫС АҚПАРАТЫ:**

**Сұрақтарыңыз:** Егер жүргізіліп отырған зерттеу жұмысының процесі, қауіп мен артықшылықтары туралы сұрағыңыз немесе шағымыңыз болса, келесі байланыс құралдары арқылы зерттеу жұмысының жетекшісімен хабарласуыңызға болады. Сулушаш Керимкулова, Назарбаев Университетінің Жоғары білім беру мектебінің профессоры, [skerimkulova@nu.edu.kz](mailto:skerimkulova@nu.edu.kz), тел.: **+ 7 7172 706144** (жұм) ұялы тел.: **+7 775 9999167**.

**ДЕРБЕС БАЙЛАНЫС АҚПАРАТТАРЫ:** Егер берілген зерттеу жұмысының жүргізілуімен қанағаттанбасаңыз немесе сұрақтарыңыз бен шағымдарыңыз болса, Назарбаев Университеті Жоғары білім беру мектебінің Зерттеу Комитетімен көрсетілген байланыс құралдары арқылы хабарласуыңызға болады: **+7 7172 70 93 59**, электрондық пошта [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz).

Зерттеу жұмысына қатысуға келісіміңізді берсеңіз, берілген формаға қол қоюыңызды сұраймыз.

- Мен берілген формамен мұқият таныстым;
- Маған зерттеу жұмысының мақсаты мен оның процедурасы жайында толық ақпарат берілді;
- Жинақталған ақпарат пен құпия мәліметтерге тек зерттеушінің өзіне қолжетімді және мәлім болатынын толық түсінемін;
- Мен кез келген уақытта ешқандай түсініктемесіз зерттеу жұмысына қатысудан бас тартуыма болатынын түсінемін;
- Мен жоғарыда аталып өткен ақпаратты саналы түрде қабылдап, осы зерттеу жұмысына қатысуға өз келісімімді беремін.

Қолы: \_\_\_\_\_

Күні: \_\_\_\_\_

**Форманың бір данасы Сізде қалады**

### ФОРМА ИНФОРМАЦИОННОГО СОГЛАСИЯ

“Особенности восприятия предмета и иностранного языка учениками пилотной школы”

Вашему ребёнку приглашено принять участие **в исследовании** по изучению восприятия учеников к уроку преподающимся на английском языке. Цель исследования- определить, как ученики воспринимают обучение предмета на английском языке, какие преимущества и трудности они видят для того что бы понять, как внедряется трехязычное образование и как можно усовершенствовать его. Вашего ребенка попросят принять участие в анкетировании и ответить на вопросы касательно его восприятия обучения предметов на английском языке методом тика ответа, который больше всего подходит ему/ей. Собранные данные будут храниться в компьютере исследователя под паролём. Как только исследование завершится, все данные будут уничтожены.

**ВРЕМЯ УЧАСТИЯ:** Анкетирование займет примерно 10 минут.

#### РИСКИ И ПРЕИМУЩЕСТВА:

Риски, связанные с исследованием: минимальны. Участие в исследовании не повлияет на оценку Вашего ребенка. Исследование не проводится в целях критики или осуждения Вашего ребенка или школы в который он/она учится. Результаты будут проанализированы в чтобы понять общую картину. Анонимность исследования гарантирована. Никакие личные данные не будут упомянуты в любых формах отчета, презентаций результатов. К каждому ученику будет назначено цифра. В качестве ожидаемых преимуществ в результате исследования можно рассматривать следующее: мнение Вашего ребенка будет исследовано, что может повлиять на качество образования в школе, и в целом. Результаты исследование позволяют заинтересованным сторонам в образовании понять реализацию полиязычного образования, и внесут вклад для развития отечественной и зарубежной науки. А так же, Ваш ребенок получить опыт участия в исследовании, что позволит ему/ей убедиться о важности его/ее мнения, выразить свое мнение и поразмыслить о своем обучении.

**ПРАВА УЧАСТНИКОВ:** Если Вы прочитали данную форму и решили принять участие в данном исследовании, Вы должны понимать, что Ваше участие является **добровольным** и что у Вас есть право **отозвать свое согласие или прекратить участие в любое время без штрафных санкций и без потери социального пакета, который Вам предоставляли.** В качестве альтернативы можно не участвовать в исследовании. Также Вы имеете право не отвечать на какие-либо вопросы. Результаты данного исследования могут быть представлены или опубликованы в научных или профессиональных целях.

#### КОНТАКТНАЯ ИНФОРМАЦИЯ:

**Вопросы:** Если у Вас есть вопросы, замечания или жалобы по поводу данного исследования, процедуры его проведения, рисков и преимуществ, Вы можете связаться с исследователем, используя следующие данные: (Сулушаш Керимулова, [skerimkulova@nu.edu.kz](mailto:skerimkulova@nu.edu.kz) and тел. + 7 7172 706144(раб.) сот. +7 775 9999167).

**Независимые контакты:** Если Вы не удовлетворены проведением данного исследования, если у Вас возникли какие-либо проблемы, жалобы или вопросы, Вы можете связаться с Комитетом Исследований Высшей Школы Образования Назарбаев Университета по телефону +7 7172 70 93 59 или отправить письмо на электронный адрес [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

Пожалуйста, подпишите данную форму, если Вы согласны участвовать в исследовании.

- Я внимательно изучил представленную информацию;
- Мне предоставили полную информацию о целях и процедуре исследования;
- Я понимаю, как будут использованы собранные данные, и что доступ к любой конфиденциальной информации будет иметь только исследователь;

- Я понимаю, что вправе в любой момент отказаться от участия в данном исследовании без объяснения причин;
- С полным осознанием всего вышеизложенного я согласен принять участие в исследовании по собственной воле.

Подпись: \_\_\_\_\_

Дата: \_\_\_\_\_

### ФОРМА ИНФОРМАЦИОННОГО СОГЛАСИЯ

“Особенности восприятия интегрировании предмета и иностранного языка учениками пилотной школы”

Вашему ребёнку приглашено принять участие в исследовании по изучению восприятия учеников к уроку преподаваемому на английском языке. Цель исследования- определить, как ученики воспринимают обучение предмета на английском языке, какие преимущества и трудности они видят для того что бы понять, как внедряется трехязычное образование и как можно усовершенствовать его. Вашего ребенка был выбран методом случайного отбора для принятия участия в индивидуальном интервью с исследователем. Во время интервью Вашего ребенка попросят ответить на вопросы, касающиеся его/ею восприятие обучение предметов на английском языке. Собранные данные будут храниться в компьютере исследователя под паролём. Как только исследование завершиться, все данные будут уничтожены.

**ВРЕМЯ УЧАСТИЯ:** Интервью займет примерно 30 минут.

### РИСКИ И ПРЕИМУЩЕСТВА:

Риски, связанные с исследованием: минимальны. Участие в исследовании не повлияет на оценку Вашего ребенка. Исследование не проводится в целях критики или осуждения Вашего ребенка или школы в который он/она учится. Результаты будут проанализированы в чтобы понять общую картину. Для обеспечения анонимности интервью может быть проведено в одном из кабинетов школы, номер которого будет известно Вам и Вашему ребенку или же за пределами школы. Если Вы даете согласие, прошу написать номер Вашего телефона для определения места интервью. Во время интервью я будет делать заметки, никакие записывающие устройства использоваться не будет. Анонимность исследования гарантирована. Никакие личные данные не будут упомянуты в любых формах отчета, презентаций результатов. К каждому ученику будет назначено цифра. В качестве ожидаемых преимуществ в результате исследования можно рассматривать следующее: мнение Вашего ребенка будет исследовано, что может повлиять на качество образования в школе, и в целом. Результаты исследование позволять заинтересованным сторонам в образовании понять реализацию полиязычного образования, и внесут вклад для развития отечественной и зарубежной науки. А так же, Ваш ребенок получить опыт участия в исследованиях, что позволит ему/ей убедиться о важности его/ее мнения, выразить свое мнение и поразмыслить о своем обучений.

**ПРАВА УЧАСТНИКОВ:** Если Вы прочитали данную форму и решили принять участие в данном исследовании, Вы должны понимать, что Ваше участие является **добровольным** и что у Вас есть право **отозвать свое согласие или прекратить участие в любое время без штрафных санкций и без потери социального пакета, который Вам предоставляли.** В качестве альтернативы можно не участвовать в исследовании. Также Вы имеете право не отвечать на какие-либо вопросы. Результаты данного исследования могут быть представлены или опубликованы в научных или профессиональных целях.

### КОНТАКТНАЯ ИНФОРМАЦИЯ:

**Вопросы:** Если у Вас есть вопросы, замечания или жалобы по поводу данного исследования, процедуры его проведения, рисков и преимуществ, Вы можете связаться с исследователем, используя следующие данные: (Сулушаш Керимкулова, [skerimkulova@nu.edu.kz](mailto:skerimkulova@nu.edu.kz) and тел. + 7 7172 706144(раб.) сот. +7 775 9999167).

проведением данного исследования, если у Вас возникли какие-либо проблемы, жалобы или вопросы, Вы можете связаться с Комитетом Исследований Высшей Школы Образования Назарбаев Университета по телефону +7 7172 70 93 59 или отправить письмо на электронный адрес [gse\\_researchcommittee@nu.edu.kz](mailto:gse_researchcommittee@nu.edu.kz)

Пожалуйста, подпишите данную форму, если Вы согласны участвовать в исследовании.

- Я внимательно изучил представленную информацию;
- Мне предоставили полную информацию о целях и процедуре исследования;
- Я понимаю, как будут использованы собранные данные, и что доступ к любой конфиденциальной информации будет иметь только исследователь;

- Я понимаю, что вправе в любой момент отказаться от участия в данном исследовании без объяснения причин;
- С полным осознанием всего вышеизложенного я согласен принять участие в исследовании по собственной воле.

Подпись: \_\_\_\_\_

Дата: \_\_\_\_\_

Тел.: \_\_\_\_\_



**INFORMED CONSENT FORM FOR THE STUDENTS**

“Students’ perceptions of their learning experiences in Content Language Integrated Learning classrooms in a piloting school”

Hello! Thank you for volunteering to participate in the interview. I study at Nazarbayev University in Astana. I want to become a researcher. I am here to talk to you about a research project I am doing. The purpose of my research project is to explore what students think about studying content subjects through the English language. I know that you study Physics in English. So, I would like to explore your opinion and experience in these classes. Your voice is very important. It will help me and other researchers to understand and thus improve this practice.

Your parent gave me the consent; however, I would like to know whether you want to participate yourself. If you agree to participate in the interview, I will ask you questions on your experience in Physics in English classes. It will take 15.minutes.

There are no risks of participation and there are no direct benefits to you. However, the information we learn from the study will contribute to the Kazakhstani and international research.

If you agree I would like to record our interview. After the project is completed, I will destroy all the data. When I present the results of the study, no names and other personal information will be reported.

If you choose not to participate, it is ok. The participation is voluntary. Your participation will not affect your grades. Also, you have the right to withdraw from the study at any time without penalty.

My telephone number is +77053215362. You can call me if you have questions about the project or if you decide you don’t want to continue in the study any more.

Do you have any questions?

Signature:

Date:

**ЗЕРТТЕУ ЖҰМЫСЫ КЕЛІСІМІНІҢ АҚПАРАТТЫҚ ФОРМАСЫ**

Сұғбатқа қатысуға тілек білдіргеніңе көп рахмет! Сұғбаттың мақсаты- оқушылардың кейбір пәндерді ағылшын тілінде оқуға көз қарасын білу. Бұл өте маңызды. Сендердің пікірлерін жалпы еліміздегі жаратылыстану-математикалық бағыттағы пәндерді ағылшын тілінде үйретуді жақсартуға үлес қосатын болады. Қазір білесіздер, еліміздің көптеген мектептері кейбір пәндерді ағылшын тілінде оқытып жатыр. Ол не үшін жасалады? Сендердің үш тілді, яғни қазақ, орыс, ағылшын тілдерін жақсы меңгеру үшін жасалып отыр. (көбірек уақыт бөлінеді). Мен сендердің пікірлеріңді сауалнама және сұғбат арқылы юинау себебім, бұл маған көбірек ақпарат алуға көмектеседі.

Сенің ата-анаң келісім бергенімен, сенің дауысың шешуші болып табылады.

Саған сұрақтар Физика пәнін ағылшын тілінде оқуға көз қарасыңды білуге байланысты қойылады. Сұғбат шамамен 30 минутқа созылады. Егер сұраққа жауап бергін келмесе, жауап бермеуге толық құқылысың.

Бұл сұғбат сенің сабағына немесе бағаларына ешқандай әсер етпейді.

Күні:

Қолы:

**Форманың бір данасы Сізде қалады**

## *Appendix B*

### **Interview protocol**

Thank you for agreeing. Let's start our interview.

1. Are you enjoying the school year?
2. Can you recall your first lessons of Physics in English? What was your first impression?  
(Research question #3 (How similar or different their perceptions are based on the year of study in CLIL classes?))

Research question #1

What are the perceptions of students of Content and Language Integrated learning Learning classes in a piloting school?

3. What do you think of studying Physics in English now?
4. What do you think is the purpose of studying Physics in English?
5. How these lessons are influencing on your English proficiency?  
Did you notice any changes: improvement or deterioration after you started studying Physics in English? What are they?
6. How these lessons are influencing on your knowledge of Physics?  
Did you notice any changes: improvement, deterioration after you started studying it in English? What are they?
7. Can you describe these lessons using three adjectives? Why?
8. What activities do you carry out during the lesson?
9. What languages do you speak when doing these activities with your peers and the teacher? Why?

Research question #2:

What benefits and challenges students see in studying content subjects in English?

10. What benefits do you see in studying Physics in English? For example, to your knowledge, future education and career.
11. What do you find the most difficult about studying Physics in English? Why?
12. What do you find more challenging—the subject or the language? Why?
13. In case you need help when doing your homework, whom would ask for help? Why?
14. Would you wish other students in Kazakhstan study Physics in English? Why?
15. What would your advice be for the students who is studying subjects in English? Why?
16. Do you have something to add?

Thank you a lot for your cooperation and participation in this interview.  
Good luck with your studies!

### Сұғбат хаттамасы

Сұғбат беруге келіскеніңе көп рахмет! Сұғбаттың мақсаты- оқушылардың кейбір пәндерді ағылшын тілінде оқуға көз қарасын білу. Бұл өте маңызды. Сендердің пікірлерін жалпы еліміздегі жаратылыстану-математикалық бағыттағы пәндерді ағылшын тілінде үйретуді жақсартуға үлес қосатын болады. Қазір білесіздер, еліміздің көптеген мектептері кейбір пәндерді ағылшын тілінде оқытып жатыр. Ол не үшін жасалады? Сендердің үш тілді, яғни қазақ, орыс, ағылшын тілдерін жақсы меңгеру үшін жасалып отыр. (көбірек уақыт бөлінеді). Мен сендердің пікірлеріңді сауалнама және сұғбат арқылы юинау себебім, бұл маған көбірек ақпарат алуға көмектеседі.

Сенің ата-анаң келісім бергенімен, сенің дауысың шешуші болып табылады.

Саған сұрақтар Физика пәнін ағылшын тілінде оқуға көз қарасыңды білуге байланысты қойылады. Сұғбат шамамен 30 минутқа созылады. Егер сұраққа жауап бергін келмесе, жауап бермеуге толық құқылысың.

Бұл сұғбат сенің сабағына немесе бағаларына ешқандай әсер етпейді.

1. Физиканы үш тілінде оқуды қашан бастадың?
2. Сол кезде сен қандай әсерде болдың?
3. Ал қазір ше? Қандай көзқарастасың?
4. Үш тілде өтетін физиканы сабағын қалай сипаттап бересің? Не істейсіңдер әдетте? Бастан аяғынан?
5. Қалай ойлайсың? Сендер не үшін Физика пәнін үш тілде оқып жатырсыңдар?
6. Бұл сабақтар сенің физика пәнін түсінуге қалай әсер етіп жатыр? Қандай да бір өзгерістер байқадың ба?: деңгейің көтерілуі немесе керісінше төмендеуі?
7. Ал ағылшын тіліне қалай әсер етіп жатыр? Қандай да бір өзгерістер байқадың ба?: деңгейің көтерілуі немесе керісінше төмендеуі?
8. Бұл сабақтарды үш сын есіммен сипаттай аласыңба? Қандай сын есімдермен? Неге?
9. Сабақ барысында қандай жаттығулар орындайсыңда?
10. Тапсырмаларды орындағанда қай тілде сөйлейсің (сыныптастармен, мұғаліммен)? Неге?
11. Физика пәнін үш тілде оқығаннан қандай артықшылықтары бар деп ойлайсың? Қандай пайдасы бар саған? Мысалы: білім, жұмыс істегенде
12. Физика үш тілде оқығаннан ең қиыны не? Неге?
13. Физика пәні қиын ба, физика пәнін үш тілде үйренген қиынба? Неге?
14. What do you find more challenging—the subject or the language? Why?
15. Саған көмек керек болғанда, мысалы үй тапсырмасынан көмекті кімнен сұрайсың?
16. Басқа пәндерді үш тілде оқығың келе ме? Неге?
17. Физика пәнін үш тілде оқып жатқан оқушыларға қандай кеңес берер едің? Неге?
18. Тағы қосарың бар ма?

Көп рахмет! Саттилик тілеймін!

### Student Questionnaire

Dear student,

Thank you for agreeing to participate in the study.

All the questions in the questionnaire are about your lessons where you study Physics in English, therefore when you answer them please consider only these lessons.

- I. Please answer each question below. Choose the answer that best describes your situation. You may put a tick or X next to the answer you want to choose.

1. How many languages do you speak?

1	2	3	4	5	6

2. How many years have you been studying Physics in English classes?

	More than a year
	More than two years

3. What were your first impressions about these lessons? You can choose more than one answer.

	Excited		Nervous
	Worried		Happy
	uncertain		Very excited

4. Would you like to learn more subjects in English in the future?

Yes	No	I do not know

5. If yes, what subjects they would be?

	Physics
	IT
	Biology
	Chemistry

6. I think it is important to study subjects in English because ... You can choose one or several answers.

	Because, it will help me in my further education
	Because my school says so
	Because, it will help in my career
	Because my parents support it
	Because it will help in my life
	I do not know

7. During the lessons I feel ..... You can choose several answers.

	confused		interested
	bored		challenged
	confident		afraid
	engaged		useful

8. Learning subject in English helped me improve my .... You can choose several answers.

	Subject vocabulary
	General vocabulary

	Listening skills
	Reading skills
	Writing skills
	Speaking skills

9. In what activities in English are you engaged during these lessons? You can choose several answers.

	Group work		Project work
	Individual work		Translation
	Solving problems		Reading
	Experiments		Presentation
	Discussion		Learning terminology
	Self/group/Peer/assessment		Pair work

10. What activities that you mentioned above are most challenging for you?

	Group work		Project work
	Individual work		Translation
	Solving problems		Reading
	Experiments		Learning terminology
	Discussion		Pair work
	Self/group/Peer/assessment		Presentation

11. What activities that you mentioned above are the easiest for you?

	Group work		Project work
	Individual work		Translation
	Discussion		Reading
	Solving problems		Learning terminology
	Experiments		Pair work
	Self/group/Peer/assessment		Presentation

**II. To what extent do you agree or disagree with the following statements? Please, rank between strongly agree to strongly disagree.**

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I find the activities in these lessons more interesting than in other subjects in mother tongue					
My English proficiency is improving because of these lessons					
I am motivated in these lessons					
These lessons are more difficult					
Subject lessons in mother tongue are easier than in English					
Subject lessons in mother tongue are more understandable than in English					
My motivation to learn English is decreased because of these lessons					
I understand the content of the subject in English					
I do not understand most of the content in					

English					
Low English proficiency hinders my understanding of the subject					
I feel overwhelmed with workload when studying subject in English					
Subject textbook, and dictionaries are helpful for understanding the subject					
Subject textbook in English is more difficult than in mother tongue					
I would not recommend other students to study subjects in English					
I want to study subjects in English in the future					

**Thank you very much!**

## Оқушыларға арналған сауалнама

Құрметті оқушы,

Бұл сауалнамаға қатысуға келіскенің үшін алғыс білдіремін.

Сауалнамадағы барлық сұрақтар сенің физика пәнін ағылшын тілінде оқуыңа қатысты қойылады.

Сондықтан сұраққа жауап берерде тек қана осы пәнді қарастыр.

**I. Келесі сұрақтарға ойланып жауап беруінді өтінемін. Сенің ойыңа және сенің пікіріңе сай келетін жауапты таңда. Сол жауаптың тұсына «V» немесе «X» белгісін қоюға болады.**

1. Барлығы неше тілде сөйлей аласың? Барлық оқып жатқан тілдердің санын белгіле.

1	2	3	4	5	6

2. Физика пәнін ағылшын тілінде неше жыл оқып жатырсың?

	Бір жылдан астам уақыт
	Екі жылдан астам уақыт

3. Физика пәнін ағылшын тілінде оқуды алғаш бастағанда (бірінші сабақтарда) қандай әсерде болдың? Бірнеше нұсқаны белгілеуге болады.

	Қуанышты болдым		Ынталы болдым
	Қобалжулы болдым		Бұл пәнді өте жақсы қабылдадым
	Сенімсіз болдым		

4. Болашақта ағылшын тілінде басқа пәндерді оқығың келе ме?

Иә	Жоқ	Білмеймін

5. Егер оқығың келсе, қандай пәндерді оқығың келер еді?

	Математика
	Информатика
	Биология
	Химия
	Басқа _____

6. Келесі сұраққа бірнеше жауап таңдауға болады.
- 
- Мен басқа пәндерді ағылшын тілінде оқимын. Себебі ...

	себебі бұл маған болашақ оқуыма көмектеседі
	Себебі мектеп оқытып жатыр
	Себебі ол маған болашақта керек болады
	Себебі менің ата-анам оны қалайды
	Білмеймін
	Ол туралы ойланбадым

7. Сабақ кезінде ..... Бірнеше нұсқаны таңдауға болады.

	кейде түсініксіз болады		қызықты болады
	кейде қызықсыз болады		мен қиын тапсырмаларды орындаймын
	мен өзіме сенімдімін		кейде сенімсіз боламын
	мен белсендімін		мен басқаларға пайдалымын

8. Физика пәнін ағылшын тілінде оқығаным маған келесі дағдыларды дамытуыма көмектесті ....
- 
- Бірнеше нұсқаны таңдауға болады.



	Физика пәніне қатысты сөздерді білуге
	Ағылшын тілінде сөздік қорымды молайтуға
	Ағылшын тілінде тыңдап түсіну қабілетін жақсартуға
	Ағылшын тілінде оқу қабілетін
	Ағылшын тілінде жазу қабілетін
	Ағылшын тілінде сөйлеу қабілетін
	Ешқандай

9. Сабақ барысында ағылшын тілінде қандай жаттығулар, тапсырмалар орындайсындар? Бірнеше нұсқаны таңдауға болады.

	Топтық жұмыс		Жоба
	Жеке жұмыс		Аударма
	Есеп шығару		Оқу
	Эксперимент жасау		Презентация
	Талқылау		Термин сөздерді оқу, жаттау, қолдану
	Өзіңді және сыныптастарыңды бағалау		Жұппен жұмыс

10. Жоғарыда белгілегендердің ішінде сен үшін ең қиыны қайсысы? Үшеуін белгіле

	Топтық жұмыс		Жоба
	Жеке жұмыс		Аударма
	Есеп шығару		Оқу
	Эксперимент жасау		Презентация
	Талқылау		Термин сөздерді оқу, жаттау, қолдану
	Бағалау		Жұппен жұмыс

11. Жоғарыда белгілегендердің ішінде сен үшін ең жеңілі қайсысы? Үшеуін белгіле

	Топтық жұмыс		Жоба
	Жеке жұмыс		Аударма
	Есеп шығару		Оқу
	Эксперимент жасау		Презентация
	Талқылау		Термин сөздерді оқу, жаттау, қолдану
	Бағалау		Жұппен жұмыс

- II. Келесі мәлімдемелермен қаншалықты келісу келіспейтінін белгіле. Толықтай келісемін мүлде келіспеймінге дейін өзіңе тиісті нұсқаны таңда.

Мәлімдемелер	Толықтай келісемін	Келісемін	Жартылай келісемін/ келіспеймін	Келіспеймін	Мүлде келіспеймін
Бұл пән басқа пәндерге қарағанда қызықтырақ					
Бұл пәннің арқасында менің ағылшын тілі деңгейім дамып жатыр деп ойлаймын					
Мен пәндерді ағылшын тілі арқылы оқығанды ұнатамын					
Мен бұл сабақта белсенді қатысып отырамын					
Бұл пәнді ағылшын					

тілінде оқитындықтан, ол маған басқа пәндерге қарағанда қиынырақ түседі					
Тек қана қазақ тілінде оқитын пәндер әлдеқайда оңайырақ					
Тек қана қазақ тілінде оқитын пәндерді оңай әрі тез түсінемін					
Пәнді ағылшын тілінде оқығаным үшін, ағылшын тіліне деген ынтам түсті					
Пән ағылшын тілінде болса да, мен түсінемін					
Пәнді ағылшын тілінде оқығандықтан, мен онша түсінбеймін					
Пәнді жақсы түсіну үшін, ағылшын деңгейі жоғары болу керек					
Пәнді ағылшын тілінде оқығандықтан, маған көптеген қиындықтар кездеседі					
Сабақта қолданатын <b>оқулықтар</b> және <b>жинақтар</b> пәнді жақсы меңгеруге көмектеседі					
Ағылшын тіліндегі оқулықтар және жинақтар ана тіліндегі оқулықтарға қарағанда қиынырақ					
Достарымның басқа пәндерді ағылшын тілінде оқығанын қалар едім, себебі бұл оларға болашақта пайдалы болады					
Мен келесі сыныптарда бұл пәнді ағылшын тілі арқылы оқуды жалғастарғым келеді					

**Көп рахмет!**

## Appendix C

### *Data Sample*

Transcript [translated from Kazakh] of the interview with participant 2.1. who studies in the 8<sup>th</sup> grade

Researcher: When did you start studying Physics in English?

Interviewee: in the seventh grade, since then ... in the beginning it was easy, it was not difficult because we worked with the terminology book, learned the terminology, in the seventh grade we had only terminology, we read and spoke. However, in the eighth grade we started to solve the tasks in English, we were called to the blackboard, it was difficult to me because I had to say everything in English, numbers everything...

R: Why do you think you study Physics in English?

I: For the future. It is a modern world, everything is in English. It will be useful, for example when we go abroad, everyone speaks English. English seems like a common language.

R: Can you describe a usual lesson of Physics in English?

I: We start the lesson merrily, greet the teacher in English. She asks the home task, we respond in English. If someone cannot solve the task, we help each other, explain. Then we say one by one in English what is given. We solve interesting tasks, translate, and laugh at the translation

R: Do you also work with the terminology?

I: Yes, we have a test at the end of each term. Then continue learning.

R: What language do you speak most at the lessons?

I: It is difficult to translate from English into Kazakh right away; therefore, it is convenient to translate into Russian. We translate English- Kazakh very fast, and tell in Russian. Teacher teaches us in English, then we repeat after her. That's how we learn.

R: in what language is your book?

I: it is in three languages. We solve in three languages

R: In what language do you learn a new theme?

I: It depends. Sometimes the teacher starts in English, and continues in Kazakh and Russian. Sometimes the teacher says the words that we know well in English. I cannot say that we speak totally in English.

R: Yes, of course. Have you ever mixed the languages? For example, words of different languages in one sentence ...

I: Yes, we have and we laugh at it then. We read in English, translate into Russian- Kazakh

R: Now, let's move to the challenges of studying subjects in English. Do you see any challenges in studying Physics in English?

I: I like Physics, but in English it is difficult. It is interesting to learn Physics in English, but in Kazakh it is easier. Now we study Physics, Chemistry and Biology in three languages. In fact, chemistry is very difficult because we should speak English quickly, tasks are difficult. If we studied these subjects in Kazakh, I would be succeeding. I also go to singing class, and it is difficult for me to succeed, but I am doing well.

R: What is the easiest thing for you at the lesson?

I: Solving tasks.

R: In what language do you solve?

I: In English, we write it in our copybooks in English.

R: Then?

I: We solve it, then teacher asks who finished. The student who finishes goes to the blackboard. Explaining is in English and here many students do not understand.

R: would you like to study other subjects in English?

I: Yes, Algebra because it is very interesting.

R: What kind of advice would you give to students who will study Physics in English?

I: If they do not put effort in the beginning, it will be difficult then. They will struggle like me; therefore, from the very beginning one should be meticulous, a willing to understand. If have questions, ask them. Do not be shy, to ask and speak in English. I'd call on them to study Physics in English because it is useful and interesting.

R: Why?

I: Because... when we work in groups... and discuss, some students do not understand and they ask. We try to explain wholeheartedly, but some do not understand. The lessons are always **lively**- dynamic because of increased interaction. We are glad. If someone does not understand Russian, we say in Kazakh. If not Kazakh, we say in English. We help each other.

R: In case you cannot pronounce something, do you feel shy?

I: in the beginning, in the 7<sup>th</sup> grade I was very shy. When teacher called me to the blackboard, I used to say I would do that. But now even though I cannot speak well, I speak, my classmates support me, they do not laugh at me. I cannot say that everyone has a good pronunciation.

R: How do you do your home task? Do you need help?

I: Sometimes I call and ask my sister, sometimes I do it myself.

R: How does these lessons are impacting on your English

I: It is easier now in English classes. When we speak and read, pronounce words better. We encounter some familiar word from Physics lesson, so we can translate right away.

R: Is there anything you want to add?

I: In English is difficult for me, but in three languages is easier.

R: Thank you very much! Good luck in your studies.